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THE

ART

OF

PROLONGING LIFE.

BY

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THE

A R T

OF

PROLONGING LIFE.

VOL. II.

ART

OF

PROLONGING LIFE.

I NOW proceed to the moſt important part of this Treatiſe, the Practical Art of prolonging Life; and I can now make known with confidence, and on good grounds, thoſe means by which alone prolongation of it is poſſible—If they are not ſo ſpecious, ſo boaſting, and ſo myſterious as thoſe commonly recommended, they have this advantage, that they may be every where found without expence, nay that they in part lie within ourſelves; that they are perfectly conſiſtent with reaſon, as well as experience; and

that they prolong, not merely life, but alſo the enjoyment of it. In a word, according to my idea, they deſerve the name of univerſal remedies, much more than all the panaceas of quackery and impoſture.

We are continually ſurrounded by the friends and the enemies of life. He who keeps company with its friends, will become old; but he who prefers its enemies will ſhorten his exiſtence. It might be expected of every prudent man, that he would prefer the former, and be always on his guard againſt the latter; but it is an unfortunate circumſtance that theſe enemies of life are not all public and known. They, in part, carry on their attacks ſecretly and imperceptibly; ſo that ſome of them aſſume the maſk of life's beſt friends. It is, therefore, difficult to diſcover them; and ſome we even harbour within our own boſoms.

The

The principal part of this Art, then, will consist in being able to distinguish our friends from our enemies, and in learning to guard against the latter. In other words, the Art of prolonging Life may be divided into two parts:

I. Guarding against the enemies of life, and those means which shorten it.

II. The knowledge and use of those means which tend to prolong it.

BOOK I.

MEANS WHICH SHORTEN LIFE.

ACCORDING to the principles before laid down, the only grounds on which the duration of life depends, it will not be difficult to determine in how many different ways it may be ſhortened.

1ſt. Every thing muſt ſhorten it which leſſens the ſum of the vital power;

2d. Every thing that takes from the organs of life their duration and renders them unfit for uſe;

3d. Every thing that haſtens vital conſumption;

4th. And every thing that prevents reſtoration.

Every thing that ſhortens life may be comprehended in theſe four claſſes; and we have now a ſtandard by which the greater or leſs miſchief, occaſioned by their influence, can be determined and appreciated. The more theſe four properties are in any thing united, the more dangerous and hoſtile will it be to our vital duration; and the fewer it contains, it will be leſs ſo. Nay, there are mixed ſubſtances which preſent, as it were, two ſides—one friendly, and another hoſtile; that is to ſay, which poſſeſs one of the above properties, but at the ſame time are more favorable and beneficial to us than hurtful. Theſe may form one peculiar claſs—But we ſhall here, according to their prevailing quality, aſſign them a place, either among thoſe things which are friendly, or thoſe which are hoſtile.

Between thoſe things which ſhorten life, there is a difference ſtill more important. Some act ſlowly, ſucceſſively, and often very imperceptibly. Others, on

on the contrary, violently as well as ſud-denly; and theſe may be rather named *the deſtroyers of life.* To theſe belong certain diſeaſes, and the various kinds of violent death, as they are properly called. The latter, in general, are much more dreaded than the former, becauſe their effects are more perceptible and more terrible: but I can aſſur my readers, that they are at bottom much leſs dangerous than theſe ſecret enemies; for they are ſo open that people can be much ſooner on their guard againſt them than againſt the former, which carry on their deſtructive approaches in private, and daily ſteal from us ſome part of life without our perceiving it, though the loſs in the end may amount to a ſum truly alarming.

I muſt here make one melancholy remark, which is, that the enemies of our life have, in modern times, dreadfully increaſed; and that the degree of civilization, luxury, refinement, and deviation from nature, in which we at preſent live,

by ſo highly exalting our intenſive life, tends alſo to ſhorten, in the ſame proportion, our exiſtence. We ſhall find, on cloſe examination, that men appear, as it were, to have anxiouſly ſtudied how they might deprive each other of life ſecretly and imperceptibly, and often in the moſt ingenious manner poſſible—Much more precaution and attention are, therefore, now neceſſary in order to ſecure ourſelves from danger.

CHAP.

CHAP. I.

Delicate nurſing and treatment in infancy.

THERE is no ſurer method of rendering the vital thread of a being originally ſhort and periſhable, than by giving it, during the firſt years of life, which may be conſidered as a continued generation and expanſion, a very warm, tender, and delicate education; that is, by guarding it from every breath of cool air; burying it for at leaſt a year among pillows and blankets, and keeping it like a chicken in a real ſtate of hatching; not omitting, at the ſame time, to ſtuff it immoderately with food; and, by coffee, chocolate, wine, ſpices, and ſuch like things, (which for children are nothing elſe than poiſon,) to irritate it beyond meaſure, and to render its whole vital activity too ſtrong and violent. By theſe

these means its internal consumption is from its birth so accelerated, its intensive life is so early exalted, and its organs are rendered so weak, tender, and sensible, that one may assert that, through two years treatment of this kind, an innate vital capacity of sixty years may be reduced one half; nay, as experience unfortunately shews, to much less, without reckoning those evil accidents and diseases which may besides be the consequence. The premature expansion of our organs and powers is by nothing so much hastened as by such a forced education; and we have before proved what an intimate connexion there is between rapid or slow expansion, and a longer or shorter duration of life in general. Speedy ripening carries always along with it * speedy destruction.

* One of the most remarkable instances of the prematurity of nature was Louis II. king of Hungary. He was born so long before the time that he had no skin. In his second year he was crowned;

in

ſtruction. This, certainly, is one great cauſe of the dreadful mortality which prevails among children. But men overlook thoſe cauſes which lie neareſt to them, and aſſume rather the moſt abſurd, in order that their minds may be at reſt, and that they may have as little to do as poſſible.

in his tenth he ſucceeded; in his fourteenth he had a complete beard; in his fifteenth he married; in his eighteenth he had gray hair, and in his twentieth he died.

CHAP.

CHAP. II.

Excefs in amorous indulgence—Weakening the power of generation—Onanifm phyfical as well as moral.

OF all the means of haftening death, with which I am acquainted, there are none fo highly deftructive, and in which every baneful property is fo much united, as in thefe. None comprehend fo perfectly all the four requifites for that purpofe, which I have already laid down; and indeed thefe melancholy exceffes may be confidered as the moft highly concentrated procefs for fhortening vital duration.—This I fhall immediately prove.

The firft mean of fhortening life was, leffening the vital power itfelf. But what can

can more leſſen the ſum of the vital power within us than waſting thoſe juices which contain it in the moſt concentrated form, as well as the firſt vital ſpark for a new being, and the moſt powerful balſam for our own blood?

The ſecond manner of ſhortening life conſiſts in leſſening the neceſſary ſolidity and elaſticity of the veſſels and organs. But it is well known that nothing tends ſo much to relax, to ſoften, and to corrupt, as this diſſipation.

The third manner, or more rapid conſumption, can be promoted by nothing ſo much as by a circumſtance, which, as appears from the example of all Nature, is the higheſt degree of vital activity; and which, as before ſhewn, is in many beings the concluſion of their whole life.

Laſtly, proper reſtoration is thereby prevented in an uncommon degree, becauſe that reſt and that equilibrium neceſſary for repairing what has been loſt

are impeded, and the organs deprived of the power requiſite for the ſame purpoſe; but, in particular, becauſe theſe debaucheries have a peculiar weakening effect on the ſtomach and the lungs, and thereby ſpecifically deſiccate the grand ſource of our reſtoration.

To this may be added the danger of imbibing, amidſt ſuch irregularities, that moſt dreadful of poiſons, the venereal, againſt which no one is ſecure who has illicit intercourſe with the fair ſex—A poiſon which may not only ſhorten life, but render it alſo painful, miſerable and loathſome, and of which I ſhall ſpeak at more length when I come to treat on *Poiſons.*

I muſt here mention alſo ſeveral other concomitant circumſtances which are connected with this diſſipation, and among theſe, in particular, that of the mental faculties being weakened. It appears that between both theſe organs, that of the ſoul (the brain), and thoſe of generation,

as well as between the two functions, that of thinking and that of generating, the one ſpiritual, the other phyſical creation, there is a very intimate connexion; and that they both require the nobleſt and moſt refined part of the vital power. We find, therefore, that they both act alternately on each other, and have a mutual and contrary effect. The more we ſtrain the mental faculties, the leſs vigorous will be our power of generation; the more we ſtimulate the generative power and waſte its juices, the more does the ſoul loſe its faculty of thought, its energy, its acuteneſs, and its memory. Nothing in the world can ſo much and ſo irretrievably ruin the brighteſt mental talents, as exceſs of this kind.

It may, perhaps, be here aſked, What is meant by *exceſs* in phyſical love? My anſwer is, when either ſex indulges that paſſion too early, before the body is completely formed—females before the age of eighteen, and males before that of twenty; when

when this enjoyment is too often and too violently repeated, which may be known by the following conſequences, laſſitude, dejection, and loſs of appetite; when one, by a frequent change of object and circumſtances, or by the artificial ſtimulus of ſpiceries, heating liquors, and the like, excites new deſires and the relaxed powers, or makes that exertion during the time of digeſtion; and, to include the whole in a few words, when one enjoys phyſical love without marriage: for it is only under the matrimonial tie, which excludes the ſtimulus of variety, and directs the phyſical propenſity to a higher moral object, that this paſſion can be phyſically refined, that it is to ſay, be rendered ſalutary and uſeful.

Every thing that has been here ſaid is applicable, in an eminent degree, to *onaniſm* alſo; for that forced and unnatural vice increaſes, in an extraordinary manner, the ſtraining of the organs, and the weakening connected with it; and this is

a new proof of the principle I before laid down, that Nature avenges nothing ſo dreadfully as tranſgreſſions againſt herſelf. When tranſgreſſions prove mortal, they are always crimes againſt Nature. It is, indeed, highly worthy of remark, that a diſſipation which ſeems to be ſo perfectly alike in all its parts ſhould, however, be ſo different in its conſequences, according as it is confined to a natural or unnatural method; and as I am acquainted with judicious men who cannot be fully convinced of this difference, I ſhall embrace the preſent opportunity of ſhewing how onaniſm, in either ſex, does infinitely more miſchief than natural enjoyment.——Horrid is the impreſſion ſtamped by Nature on ſuch an offender! He is like a faded roſe, a tree blaſted in its bloom, a wandering ſkeleton. All his fire and ſpirit are deadened by this deteſtable vice; and nothing remains but debility, languor, livid paleneſs, a withered body, and a degraded ſoul. The

eyes lofe their luftre and ftrength; the pupils feem funk; the features are diftorted, and lengthened; the rofy complexion of youth vanifhes, and the vifage appears of a pale-white leaden color. The whole body becomes affected, and fenfible of the flighteft impreffion; the mufcular power is loft; fleep brings with it no refrefhment; every movement is attended with torture; the legs can no longer fupport the body; the hands tremble; aching pains arife in all the limbs; the faculty of thought is deranged, and cheerfulnefs is banifhed. The unhappy fufferer fpeaks little, and as if it were only by force; and all his former livelinefs of mind is depreffed. A youth endowed by Nature with genius and talents, becomes dull, or totally ftupid; the mind lofes all tafte for virtuous and exalted ideas; and the imagination is altogether corrupted. The flighteft circumftance refpecting a female is capable of exciting in him defire, fhame, horror, and repentance; and defpair

despair of his evils being cured renders his misery complete. The whole life of such a man is a continued succession of secret reproach; painful sensations, arising from the consciousness of having brought upon himself internal weakness; irresolution, and disgust of life; and it needs excite no surprise that such an unhappy wretch should at length become a self-murderer; for no man is so much exposed to suicide as the onanist. The wasting of that which gives life, excites disgust of life in the highest degree, and that singular kind of self-murder *par depit* which is so peculiar to the present age. Besides, the powers of digestion are destroyed; the patient is tormented with flatulencies, and the cramp in the stomach; the blood becomes corrupted; the breast is choked up with phlegm; and eruptions and ulcers in the skin, a desiccation and wasting of the whole frame, epilepsy, asthma, slow fever, debility, and premature death, are at length the consequences.

There is another ſpecies of this vice which may be called *moral onaniſm:* It is poſſible without bodily pollution; but it exhauſts in a dreadful manner alſo. I here allude to heating and filling the imagination with obſcene and laſcivious ideas, and a vicious and habitual propenſity to indulge in ſuch thoughts. This evil may, at length, become a real diſeaſe of the mind:—the imagination is then totally corrupted, and governs the whole ſoul; nothing is intereſting to men ſubject to it, but what relates to lewdneſs; the ſlighteſt impreſſion of that kind excites in them a general fervor and irritation; their whole exiſtence is a continual fever, which weakens the more, as it always ſtimulates without gratification.——This ſtate may be found, above all, among voluptuaries who have abandoned ſenſual enjoyment, but who endeavor, by ſuch mental indulgence, to make themſelves amends, without reflecting that in its conſequences it is almoſt equally deſtructive; alſo in religious celibacy,

bacy, where mental onaniſm can aſſume the maſk of fervid devotion, and conceal itſelf under the appearance of divine rapture and ecſtacy; and, laſtly, among idle perſons of the other ſex, who, by novels, and the like means, have corrupted their imaginations, and excited in them a propenſity which is not unfrequently honored with the modiſh name of ſenſibility; and who, under a ſtiff and ſevere outſide, indulge often in the lewdeſt and moſt diſſolute ideas.

This may ſuffice on the melancholy conſequences of ſuch debaucheries, which tend not only to ſhorten but to embitter life.

CHAP. III.

Over-ſtrained exertion of the mental faculties.

BUT mental, as well as bodily, exceſs is attended with the like conſequences; and it is worthy of remark, that too great exertion of the mental faculties, and the waſte of the vital power connected with it, produce on the health and vital duration almoſt the ſame effects as a waſte of the generative powers: loſs of the power of digeſtion, depreſſion, dejection, weakneſs of the nerves, conſumption, and premature death.

Much, however, depends here on the difference of ſtructure and conſtitution; and thoſe who have naturally a ſtronger and more active organization of ſoul, muſt ſuffer leſs from ſuch exertion than

thoſe

thoſe who are deſtitute of that advantage. Thoſe, therefore, are moſt affected by it, who, with a moderate ſtructure of mind, attempt to force it beyond its powers; and that exceſſive mental exertion which we make involuntarily, and without pleaſure in the object of it, will hence weaken us moſt.

But it may here be aſked, What is meant by exceſs in mental exertion? This, in general, is as difficult to be defined as exceſs in eating and drinking; becauſe the whole depends on the difference in the capacity and ſtate of the mental powers, and theſe are as different as the powers of digeſtion. That may be exceſs of mental exertion for one, which is not ſo for another, endowed with ſtronger faculties. The circumſtances, alſo, under which that function is exerciſed, make a very eſſential difference. I ſhall, therefore, define more accurately, what is to be underſtood by debauchery or exceſs in the function of thinking.

1st. When one, while employed in abstruse thought, neglects too much the body. Every irregular exertion of our powers is hurtful; and as a man is infinitely more weakened when he exercises his thought without attending to bodily exercise, it is equally certain that those can undergo more mental labor, and with much less injury to their health, who, in the mean time, give to the body suitable and periodical exercise.

2d. When one thinks too incessantly on the same subject. The same law prevails here as in regard to muscular motion. When one moves the arm continually in the same direction, one, in a quarter of an hour, will become more fatigued than if the limb had been moved two hours in various directions. Nothing exhausts so much as uniformity in the pursuit and employment of the mental powers; and Boerhaave tells us, that after having bestowed intense study, for a few days and nights, on the same object, he

fell

fell ſuddenly into ſuch a ſtate of laſſitude and relaxation, that he lay ſome time in an inſenſible and death-like condition. A proper change of objects is, therefore, the firſt rule in order to ſtudy without injury to the health, and even to accompliſh more work upon the whole. I am acquainted with great and intenſe thinkers, mathematicians and philoſophers, who, at an advanced period of life, are ſtill happy and contented; but I know alſo that they have made this variety a law, and that they always divide their time between theſe abſtract ſtudies and reading hiſtory, agreeable poetry, travels, and works of natural hiſtory. It is of great benefit, in this reſpect, to unite always a practical with a ſpeculative life.

3d. When one employs the mind on too abſtract or difficult ſubjects; as, for example, problems of the higher mathematics and metaphyſics. The object makes a very eſſential difference. The more abſtract it is, and the more it obliges

'liges one to disengage one's self from the sensual world, and as it were to insulate the mind separated from the body,' the most unnatural state without doubt that can possibly be, the more weakening and over-straining is its effect. Half an hour of such abstraction exhausts more than a whole day employed in translation. But here, also, a great deal is relative. Many are born for such labor, and have those powers and that frame of mind which it requires; while, on the other hand, many are destitute of both, and yet endeavor to force them. It appears to me very singular, that, when it is requisite to raise up a corporeal burthen, people always first try it by their strength, to discover whether it be not too heavy for them; but in regard to a mental burthen, never consult their powers to know whether they are sufficient to sustain it. How many have I seen miserable and enervated, merely because they attempted to dive to the depths of philosophy without having philosophical

losophical heads! Must every man, then, be a philosopher by profession, as seems to be the mode at present? In my opinion, a particular organization is necessary for that purpose; and it may be left to the chosen few to investigate and unfold the secrets of philosophy: as to others let them be contented with acting and living like philosophers.

4th. I consider it also as excess, when one labors always in creating and never in enjoying what has been created by others. The labor of the mind may be divided into two parts: the *creative*, which produces of itself and gives birth to new ideas; and the *recipient*, or passive, which merely receives and enjoys foreign ideas, as, for example, by reading or hearing others. The former is by far the most exhausting; and one ought, therefore, to vary them, and to enjoy them in turns.

5th. When one begins to overstrain the mind too early in infancy. At this period a small exertion is highly prejudicial.

Before

Before the age of ſeven, all mental labor is an unnatural ſtate, and attended with conſequences as fatal to the body as onaniſm.

6th. When one ſtudies *invita Minerva*, that is, applies to ſubjects on which one labors involuntarily, and not *con amore*. The more inclination one has for any kind of mental employment, exertion will be the leſs hurtful. More caution, therefore, is neceſſary in the choice of ſtudies; and wretched muſt thoſe be who neglect an object of ſo much importance.

7th. When one ſtimulates, ſtrengthens, or prolongs mental exertion by artificial means. People employ commonly, for this purpoſe, wine, coffee, or ſnuff; and though theſe artificial helps of thought are in general not to be approved, becauſe they always exhauſt doubly, it muſt, however, be confeſſed, that, at thoſe times when the labor of the mind does not depend upon the will, but on periods and hours, they cannot altogether be diſpenſed with;

and on ſuch occaſions, a diſh of coffee, a pipe of tobacco, or a pinch of ſnuff, may be the moſt ſufferable. But let people be on their guard againſt exceſs; becauſe an abuſe of them muſt increaſe, in an incredible degree, the miſchiefs of mental exertion.

8th. When one overſtrains the mind during the time of digeſtion. This occaſions double injury: one weakens one's ſelf more, as more exertion is then neceſſary for thinking, and interrupts at the ſame time the important function of digeſtion.

9th. When one employs, in mental labor, that time which ought to be devoted to ſleep; a cuſtom highly prejudicial to life, and of which I ſhall ſpeak more expreſsly when I come to treat on ſleep.

10th. When one unites ſtudy with hurtful external circumſtances; and of theſe there are two in particular, *ſitting in a bent poſture*, and *confined air*; which are often more deſtructive in their conſe-

quences

quences than intenſe thinking itſelf. People, therefore, ought to accuſtom themſelves to ſtudy lying, ſtanding, walking, or riding on a hobby; not always in the cloſet, but ſometimes in the open air; and they will then ſuffer much leſs from thoſe diſeaſes which are ſo incident to men of letters. The ancient philoſophers undoubtedly ſtudied as much as the modern literati; and yet never ſuffered from the hypochondria, hemorrhoids, &c. The ſole cauſe of this was, that they meditated more, lying or walking, and in the open air; becauſe they never drank coffee, or uſed tobacco; and becauſe, at the ſame time that they exerciſed the mind, they never neglected the care and the exerciſe of the body.

CHAP.

CHAP. IV.

Diseases—Injudicious manner of treating them—Sudden kinds of death—Propensity to self-murder.

DREADFULLY has this host of the secret and open enemies of life increased in modern times. When one reflects how little a savage of the South-Sea islands knows of diseases, and then takes a view of an European compendium of pathology, where they are marshalled by regiments and companies, and where their number amounts to several thousands, one cannot help being alarmed to find that so much is possible for luxury, corruption of morals, unnatural modes of living, and debauchery. Many, nay the greater part of these diseases, are occasioned by our own fault; and it is equally certain

certain that new ones may be created by the like conduct. Others came into the world no one knows when or how, and were altogether ſtrangers to the ancient. Theſe are the moſt inveterate and deſtructive; the ſmall-pox, the meaſles, and the venereal diſeaſe: and theſe even are ſo far owing to ourſelves, that we ſuffer them to ſpread and exerciſe their ravages, without forming any regulations to check them; though it is proved that, by a proper exerciſe of reaſon, with the help of thoſe obſervations that have been collected, we might baniſh them from our boundaries, in the ſame manner as they were introduced.

The greater part of diſeaſes act either as violent kinds of death; the means of ſuddenly ſtopping vital operation, like the apoplexy; or as the means of ſhortening it gradually, by being either totally incurable, or, even when they are cured, by leaving behind them ſuch a loſs of the vital power, or ſuch weakneſs and de-

range-

rangement of the nobler organs, that a body ſo affected can no longer attain to that term of life to which it was originally deſtined.

The following ſhort view, collected from different bills of mortality, will ſhew, in the cleareſt manner, how monſtrous that loſs is which mankind ſuſtain at preſent by diſeaſe.—Of a thouſand perſons who are born, 24 die at their very birth; teething carries off 50; convulſions and other diſeaſes during the two firſt years, 277; the ſmall-pox, which, as is well known, deſtroys one in ten, carries off 80 or 90; and the meaſles 10. If they are females, 8 die in child-bed. The aſthma, conſumptions, and diſorders of the breaſt, at leaſt in England, deſtroy 190; violent fevers, 150; apoplexy, 12, and the dropſy, 41.—Of a thouſand perſons alſo, we can allow only 78 who die of old age, or rather at an advanced period of life; for the greater part of theſe will fall a ſacrifice to accidental affections.

In ſhort, it hence appears, that nine-tenths of mankind die always prematurely, and by the effects of diſeaſe.

I muſt here mention alſo a new and deteſtable diſorder, which tends to the immediate deſtruction of life, I mean a propenſity to ſelf-murder. This unnatural paſſion, which prevailed formerly through direful neceſſity and heroic reſolution, has now become a diſeaſe, which, in the bloom of youth, amidſt the moſt favorable circumſtances, merely by diſguſt and ſatiety of life, can excite the moſt horrid and irreſiſtible deſire to deprive one's ſelf of exiſtence *. There are, indeed, men in whom every ſource of vital ſenſation and vital enjoyment is ſo exhauſted, in whom every germ of activity and happineſs is ſo deadened, that they find nothing ſo inſipid, ſo diſagreeable, and ſo diſguſtful as life; that they have no longer any points of contact with the

* In ſeventy-five years, twice as many people in London fall a ſacrifice to ſuicide as to the pleuriſy.

world

world which ſurrounds them; and that life, at laſt, becomes to them ſuch an oppreſſive burden, that they cannot withſtand the deſire of getting rid of it. And theſe men, for the moſt part, are ſuch as, by youthful diſſipation, and too early a waſting of thoſe balſamic vital juices which ought to be the ſeaſoning of life, have exhauſted themſelves, and become incapable of reliſhing its enjoyments. Is it not natural that ſuch unfortunate beings ſhould prefer death without all ſenſation, to a living death which their life may undoubtedly be called?

But the miſchiefs of theſe already too numerous and dangerous enemies are infinitely increaſed, becauſe people in part treat them very improperly, and in general abuſe medicine too much.

Among thoſe improprieties which regard the treatment of diſeaſes, I reckon the following:—When people, notwithſtanding every proof of their miſchief, ſuffer the cauſes of diſeaſe to remain in

activity: when one, for example, evidently obſerves, that drinking wine, the uſe of too light clothing, or ſitting up late at night, brings on diſeaſe, and yet continues theſe practices; alſo, when one totally miſtakes the diſeaſe, or will not allow that any exiſts, by which means a very trifling indiſpoſition may be converted into a ſerious malady. And here I cannot help particularly mentioning a negligence to which the lives of thouſands are undoubtedly ſacrificed, I mean neglecting a *catarrh* or *cough*. People in general conſider this as a neceſſary, and, in part, uſeful evil; and in that reſpect they are right, if the catarrh be moderate and do not continue too long. But one ought never to forget that every catarrh is a diſeaſe, and may readily end in an inflammation of the lungs, or, what is more frequently the caſe, in an aſthma or conſumption; and I do not ſay too much when I aſſert, that one half of all the aſthmas ariſe from catarrhs which have

have been thus neglected. Such mischief follows when they continue too long, or have been improperly treated; and I therefore recommend the two following rules, which ought to be sacredly observed by every one who is attacked by a catarrh of the breast. One must not overlook a catarrhal cough more than a fortnight; if it continues longer, it must be considered as a disease, and be treated by a physician. Secondly, during the time every catarrh lasts, one must guard against violent heating of the body, cold, and the use of spices, wine, and other spiritous liquors.

It is also a too common mode of improperly treating diseases, that people often, partly from ignorance or prejudice, and partly through mistaken tenderness, do exactly the contrary of what ought properly to be done. Of this kind are, when people oblige the patient to eat though he has no appetite; when, during feverish disorders, he is suffered to use beer, wine, coffee, meat-soups, and other rich

and nouriſhing things, by which the ſlighteſt degree of fever may be changed into the moſt violent; when people, on the patient's complaining of a fever, and that cold which is connected with it, bury him immediately under bed-clothes, ſhut up the doors and the windows, and heat the air of the apartment as much as poſſible; and when they do not pay ſufficient attention to cleanlineſs in the apartment, by removing properly the patient's filth and excretions. This injudicious treatment deſtroys more of mankind than diſeaſe itſelf; and is principally the cauſe why in the country ſo many ſtrong ſound men fall a ſacrifice to death; why diſeaſes there ſo readily aſſume a malignant quality; why, for example, the ſmall-pox are more deſtructive there in winter than in ſummer, becauſe people ſhut the doors and windows, and, by artificial means, keep up in the patient's bed-chamber a heat equally great perhaps as that which prevails during the ſummer.

And laſtly, I reckon among theſe improprieties,

proprieties, when one consults no physician, or consults one that is unskilful; uses medicine injudiciously; has recourse to quacks; and employs *secret means*, *universal remedies*, &c. of which I shall treat more at length when I come to the *rational use of medicine*.

The violent kinds of death also sweep off an immense number of mankind; and these, in modern times, have unfortunately made great progress. Not only have a more enlarged spirit of enterprise, the greater frequency of sea-voyages, and more extensive trade, multiplied such accidents; but people have fallen upon inventions for accomplishing the object of shortening life in an incredibly quick and refined manner. I shall here mention only gun-powder, and several new sorts of poison, such as *Aqua Toffana*, *Succession Powder*, &c. Nay, the art of killing has now become a peculiar and exalted science.

CHAP. V.

Impure air—Men living together in large cities.

ONE of the greateſt means of ſhortening human life is, men living together in great cities. Dreadful is the preponderance which the ravage thence occaſioned has in the bills of mortality! In Vienna, Berlin, Paris, and London, the twentieth or twenty-third perſon dies annually; while in the country around them, the proportion is only one in thirty or forty. Rouſſeau is perfectly right, when he ſays, that men, of all animals, are the leaſt formed for living together in great multitudes. The breath of a man is deadly for his fellow-creature; and this is the caſe both in a proper as well as a figurative

ſenſe,

ſenſe. The moiſture, or, as it is commonly called, the thickneſs of the air, is not what alone makes it prejudicial, but the animaliſation which it acquires by ſo many people being crowded together. We can at moſt breathe the ſame air only four times; for it is then, from the fineſt ſupport of life, converted by ourſelves into the moſt deadly poiſon. Let one now only reflect on the atmoſphere of ſuch monſtrous places, where it is impoſſible for an inhabitant to inſpire a mouthful of air that has not been for ſome time already in the lungs of another. This produces a general ſecret poiſoning, which, upon the whole, muſt neceſſarily ſhorten the duration of life.—Thoſe then who are able, ought to avoid living in great cities: they are open ſepulchres for mankind; and not only in a phyſical, but in a moral point of view. Even in cities of moderate ſize, where perhaps the ſtreets are ſomewhat narrow, people ſhould prefer a reſidence in the ſuburbs; and it is at leaſt

least their duty to quit the city atmosphere for an hour or half an hour every day, merely in order that they may inspire a little fresh air.—But more of this in the chapter on Poisons.

CHAP.

CHAP. VI.

Intemperance in eating and drinking—Refined cookery—Spiritous liquors.

THE firſt thing which, in regard to diet, can act as a ſhortener of life, is *immoderation*. Eating and drinking too much is prejudicial to life two ways. It overſtrains the powers of digeſtion, and thereby weakens them. It prevents digeſtion, becauſe with ſuch a quantity the whole cannot be properly prepared; and crudities in the inteſtines, and bad juices, are the conſequence. It increaſes alſo proportionably the quantity of the blood, and thereby accelerates circulation and life; and beſides, it gives riſe to indigeſtion, and the neceſſity of uſing evacuants, which always weaken.

To eat too much, means when people eat till

till they can eat no longer; and the following are the ſigns: When one experiences a heavineſs and fullneſs of the ſtomach, yawning, belching, drowſineſs, and confuſion in the head. The old rule, which contains much truth, ought therefore to be always obſerved: Give over eating while you have ſtill ſome appetite left.

Too refined cookery belongs to the ſame claſs.—Unfortunately I muſt here exclaim againſt this friend of our palate, as one of the greateſt enemies of life; as one of the moſt deſtructive inventions for ſhortening it; and in the following manner:

1ſt. It is well known that the principal part of this art conſiſts in making every thing *piquant* and ſtimulating. Every article of food, therefore, is half compoſed, according to this preparation, of hot ſtimulating ſubſtances; and inſtead of accompliſhing, by eating, what is the natural object of it, nouriſhment and reſtoration,

ration, we increafe rather, by irritation, internal confumption, and actually produce the contrary. After a meal of this kind one has always an artificial fever; and thofe who ufe fuch food may juftly fay, *confumendo confumimur.*

2d. The worft is, that people, by this cookery, are always induced to eat too much. They become fuch friends to their palate that every remonftrance of the ftomach is ineffectual; and as the palate is always tickled in a new and agreeable manner, the ftomach has thrice or four times as much labour as it is capable of performing. For it is a very common fault, that one does not make a diftinction between the appetite of the palate and that of the ftomach; and confiders that as a real, which is only a falfe, appetite; and this error is by nothing favored fo much as refined cookery. Man thereby lofes, at length, one of the greateft fupports of life, the property of knowing when he has had enough.

3d. One grand maxim in this cookery is, by the moſt unnatural and moſt variegated compoſitions, to produce new ſtimulants, and new diſhes. And hence it happens that things which ſingly and alone were perfectly harmleſs and innocent, acquire, by combination, properties altogether new and deſtructive. Acids and ſweet ſubſtances, for example, do no hurt when uſed ſeparately; but, when uſed together, they may become prejudicial. Eggs, milk, butter, and flour, are each, uſed by itſelf, very eaſy of digeſtion; but when joined together, and formed into a fat ſolid pudding, the produce will be extremely heavy and indigeſtible. It may, therefore, be laid down as a fundamental principle, that the more compounded any kind of food is, the more difficult it will be of digeſtion; and what is ſtill worſe, the more corrupt will be the juices which are prepared from it.

4th. A grand acquiſition in the neweſt mode of cookery is the art of bringing

nouriſhing juices into the body in the moſt concentrated form. Hence we have *conſommés*, *jus*, *coulus*, and many other things of the like kind. By expreſſion, and boiling, people have found means to concentrate the ſubſtance of ſeveral pounds of beef, capon, and marrow-bones, into the ſmall ſize of a jelly or ſoup; and they imagine they have accompliſhed ſomething great when they ſend ſuch an eſſence of nouriſhment immediately, and at once, into the blood, without expoſing the teeth to the trouble of chewing, or the ſtomach to the labor of digeſting. That is to ſay, people imagine they can reſtore themſelves full gallop; and this is the favorite ſyſtem of thoſe who conſume themſelves in that manner. But theſe people are miſerably deceived; for,

In the firſt place, one can never deviate from the regulations of Nature without injury. Not without reaſon has it been made a law, that the ſtomach can receive only

only a certain quantity: a degree more would be too much for the whole. Every body can admit only a proportionable quantity of nouriſhment; and this capacity of the whole is always in direct ratio with the ſtomach. Man here defrauds Nature: he goes beyond the firſt principle, if I may ſay ſo; and ſmuggles, as it were, into the body, thrice or four times as much nouriſhment as it is capable of receiving. The conſequence is, a continual plethora of all the veſſels; and this always deſtroys the equilibrium as well as the health, and, in the end, life itſelf.

Secondly, it has been eſtabliſhed by Nature, on grounds equally good, that our nouriſhment ſhould be uſed in a form rather coarſe. The advantage of this law is, that our food is firſt chewed in the mouth, macerated and mixed with ſaliva: in the next place, that it is longer retained in the ſtomach, in order, by its ſtimulating quality, to incite the ſtomach to more reaction; conſequently it is much better

better affimilated and changed into the nature of our fubftance. On this properly depends real reftoration; for nourifhment can pafs into our bodies, and become truly ufeful to us, only after it has been, by the powers of the ftomach, rendered homogeneous and fimilar to our fubftance.

By tranfgreffing this firft principle, one creates in the body juices, which, becaufe they have not been fufficiently affimilated, are unable to effect proper reftoration; which, as foreign particles, tend rather to irritate; and thus promote confumption, much more than reftoration.

In my opinion, therefore, it is highly proper that an art which prevents reftoration, which fills us with raw indigefted juices, and which increafes internal confumption, fhould be confidered, not as a friend of our life, but as one of its moft effential enemies. One might almoft imagine that it was invented to

convert one of the nobleſt gifts of God into a ſecret poiſon.

Laſtly, we may place in this claſs, of things that tend in a particular manner to ſhorten life, all *preparations of ſpiritous liquors*, which, under whatever name known, are, in that reſpect, highly prejudicial. When people drink theſe, they drink liquid fire. They accelerate vital conſumption in a dreadful manner; and make life, in the propereſt ſenſe, a proceſs of burning.

CHAP.

CHAP. VII.

Paſſions and diſpoſitions of mind which ſhorten life—Peeviſhneſs—Too much occupation and buſineſs.

CERTAIN habits and diſpoſitions of mind, ſuch as melancholy, care, dejection, fear, anxiety, faint-heartedneſs, and, in particular, avarice and hatred, which are hoſtile to life, claim a diſtinguiſhed rank among thoſe means which tend to ſhorten it.

All theſe exhauſt the fineſt of the vital powers; deſtroy, in particular, digeſtion and aſſimilation; weaken the vigor of the heart; and, by theſe means, impede the important buſineſs of reſtoration. The firſt or melancholy affections act, however, negatively in ſhortening life.

On the other hand, thoſe of avarice and hatred have, as it were, a poſitive property of bringing on death. They not only deprive the body of its vital powers, but, as they inceſſantly ſharpen the gall, they are continually preparing a ſecret poiſon; and, by the general irritation of the gall, increaſe, in an extraordinary degree, ſelf-conſumption. That motto, therefore, is highly proper: Avarice conſumes itſelf.

To theſe belongs that malignant diſpoſition of mind known by the name of *peeviſhneſs*. Nothing can ſo much blaſt the bloom of life, ſhut up every acceſs to pleaſure and enjoyment, and change the beautiful ſtream of life into a ſtagnated puddle, as this diſagreeable habit. I adviſe every one who regards his life to fly from this deadly poiſon, and never to ſuffer it even to approach.

Fear, alſo, deſerves here a particular place. It belongs, in like manner, to thoſe bad habits of mind which one can harbour or baniſh at pleaſure.

Walter, an Engliſhman, who ſailed round the world with Anſon, was converſing one day with young Berkenhout; and as the latter happened to mention the word Fear, Walter, with ſome emotion, replied, *Fear is a baſe paſſion, beneath the dignity of man.* And, without doubt, it is one of the moſt abſurd: a paſſion which debaſes and degrades man, as much as its oppoſite paſſion, courage, can exalt and elevate him above human nature. Fear robs him of power, reflection, judgment, reſolution; in a word, of all that pre-eminence which the human mind enjoys; and, to accuſtom children to fear, ought to be one of the firſt principles of education. But, unfortunately, the direct contrary is the caſe! I ſhall here enlarge on two only of the moſt uſual kinds of fear: fear of thunder, and fear of apparitions or ſpirits. Now he who is ſubject to both theſe may bid farewell to happineſs and tranquillity. The period of night, which by

its obſcurity is ſo wiſely deſtined for ſweet repoſe, is to him the ſignal of the moſt painful uneaſineſs. While others enjoy peaceful ſleep, he liſtens with trembling and diſmay to the ſmalleſt ſound; the ſweat of horror burſts forth from every pore of his body; and he is more fatigued in the morning, than at the moment when he lay down.

The joyful ſeaſon of ſummer is to him alſo a period of terror and dread; and every fine day brings with it the idea of thunder, and the apprehenſion of danger.

One may eaſily comprehend what deſtructive influence ſuch continual miſery muſt have on the duration of life. Fear is an inceſſant cramp; it contracts all the ſmaller veſſels; the whole ſkin grows cold, and perſpiration is completely checked. The blood is collected in the interior large veſſels; pulſation becomes irregular; the heart is overcharged, and can not move with freedom. The important buſineſs of circulation is therefore deranged. Di-

gestion is also interrupted, and crampish affections take place. All the muscular power is palsied; the sufferer attempts to run, but is not able; he is seized with a general shivering; he breathes short, and with difficulty; in a word, fear has all those effects which are produced by a mortal secret poison, and its consequences are equally pernicious in shortening life.

It is impossible for me to omit here a characteristic of modern times, which certainly deprives us of a valuable part of our life: namely, that unfortunate spirit of restless enterprise *(polypragmosine)*, which at present subdues a great part of the human race; an incessant fickleness, and propensity to new undertakings, new labours, and new plans. The genius of our age seems to incline men, much more than is natural for them, to reflection, activity, speculations, and reformation of every kind; and to exercise with more vigor all the powers which they possess: for the great increase of luxury, by still

multiplying its wants, makes new ſchemes and new exertions of the faculties always more neceſſary. Hence ariſes that endleſs uneaſineſs which deſtroys all ſenſations of internal tranquillity and contentment; which never ſuffers men to enjoy that degree of peace and relaxation indiſpenſibly requiſite for reſtoring them; and which, conſequently, in an alarming manner, accelerates conſumption.

CHAP.

CHAP. VIII.

The fear of death.

NO kind of fear is attended with more unhappineſs than the fear of death. He who is ſubject to it dreads ſomething which is totally unavoidable, and againſt which we can never be a moment ſecure. He enjoys pleaſure with trembling and anxiety; he denies himſelf every thing, becauſe every thing may be the vehicle of death; and, by this everlaſting apprehenſion of loſing life, he loſes it in reality. No one who feared death ever attained to a great age.

Love life, and fear not death! is a command and a prophecy—the only true frame of mind to become happy and old; for, whoever fears death may bid farewell to happineſs. To him no enjoyment is pure;

pure; every pleaſure is poiſoned with the idea of death; he is always like a malefactor purſued; the enemy is continually at his heels; and yet there are an immenſe number of people who are not able to baniſh from them this diſeaſe of the mind. For the benefit of theſe I ſhall here lay down ſome rules, which, though they may not diſplay much metaphyſical acuteneſs, I can recommend as good preſervatives againſt the fear of death; and which I know, by experience, to have been effectual:

1ſt. Let a man make himſelf very familiar with the idea of death. He alone, in my opinion, is happy, who has ſo often, and in ſo undaunted a manner, looked this unavoidable enemy in the face, that, by long cuſtom, it has at length become to him a matter of indifference. How much do thoſe deceive themſelves who imagine they have found, in baniſhing the thoughts of death, the beſt remedy for the fear of it! Before they are

aware,

aware, amidſt the moſt lively enjoyment will the idea ruſh upon them, and derange them the more, the leſs they are acquainted with it. In a word, I can call thoſe alone fortunate who have carried this cuſtom ſo far that, in the moment of joy, they can think of death without being depreſſed; and my readers may believe me, for I aſſert ſo on my own experience, that, by often dwelling upon this idea, and moderating its appearances, we will at length acquire a wonderful indifference reſpecting it. Let us only turn our attention to ſoldiers, ſailors, and miners. Where ſhall we find men more contented and happy, more ſuſceptible of every joy? And for what reaſon? Becauſe, by their continual approach to death, they have learned to deſpiſe it. He who no longer fears death is alone free; there is nothing elſe that can fetter his ſenſes, diſturb him, or render him unhappy. His ſoul is filled with exalted and undaunted courage, which ſtrengthens the vital

vital power, and which is therefore a poſitive mean to remove this fear.

This cuſtom is attended alſo with ſome concomitant circumſtances which are undoubtedly of no little importance. It is an excellent help to enable one to continue honeſt and virtuous. On every occaſion of doubt, when the queſtion ariſes whether an action be right or wrong, let a man think only on the laſt hour of his life, and aſk himſelf, Would'ſt thou then do ſo; wilt thou then wiſh to have acted ſo? Innocence is certainly that happy ſtate, that enjoyment of life, which can enable a man to think on death without terror. Does a man harbour enmity or revenge againſt another—does he entertain a wiſh of avenging an injury done to him—let him only reflect on that hour, and on the ſtate in which his thoughts will then be, and I engage that his ideas of enmity and revenge will immediately forſake him. The reaſon is, that, by thus changing the theatre of action, all thoſe

little

little ſelfiſh objects by which we are uſually guided are removed; every thing at once appears in its proper point of view, under its juſt proportion; the deception vaniſhes, and nothing remains but what is real.

2d. Many fear death much leſs than the operation of dying. People here form the moſt ſingular conception of the laſt ſtruggle, the ſeparation of the ſoul from the body and the like. But this is all void of foundation. No man certainly ever felt what death is; and as inſenſibly as we enter into life, equally inſenſibly do we leave it. The beginning and end are here united. My proofs are as follows—Firſt, man can have no ſenſation of dying; for, to die, means nothing more than to loſe the vital power; and it is the vital power by which the ſoul communicates ſenſation to the body. In propertion as the vital power decreaſes, we loſe the power of ſenſation, and of conſciouſneſs; and we cannot loſe life, without at the

the ſame time, or rather before, loſing our vital ſenſation, which requires the aſſiſt-ance of the tendereſt organs. We are taught alſo by experience, that all thoſe who ever paſſed through the firſt ſtage of death, and were again brought to life, un-animouſly aſſerted, that they felt nothing of dying, but ſunk at once into a ſtate of inſenſibility.—Let us not be led into a miſtake by the convulſive throbs, the rat-tling in the throat, and the apparent pangs of death, which are obſerved in many perſons when in a dying ſtate. Theſe ſymptoms are painful only to the ſpecta-tors, and not to the dying, who are not ſenſible of them. The caſe here is the ſame as if one, from the dreadful contor-tions of a perſon in an epileptic fit, ſhould form a concluſion reſpecting his internal feelings. From what affects us ſo much, he ſuffers nothing.

3d. Let one always conſider life, as it really is, a mean ſtate, which is not an ob-ject itſelf, but a medium for obtaining an

object,

object, as the multifarious imperfections of it sufficiently prove; as a period of expanſion and preparation, a fragment of our exiſtence through which we are to be fitted for, and tranſmitted to other periods. Can the idea, then, of really making this tranſition; of aſcending to another from this mean ſtate, this doubtful problematical exiſtence, which never affords complete ſatisfaction, ever excite terror? With courage and confidence we may, therefore, reſign ourſelves to the will of that Supreme Being, who, without our conſent, placed us upon this ſublunary theatre; and give up to his management the future direction of our fate.

4th. Remembrance of the paſt, of that circle of friends who were neareſt and always will be deareſt to our hearts, and who, as it were, now ſmile to us with a friendly look of invitation from that country of darkneſs, will tend alſo very much to allay the fear of death.

CHAP. IX.

Idleneſs—Inactivity—Languor.

BUT an oppoſite conduct, that of neglecting to exerciſe our powers, may tend alſo to ſhorten life; becauſe, by theſe means, the organs will ſoon become unfit for uſe; and derangement of them, interrupted purification of the juices, and bad reſtoration, muſt be the conſequence. It was the firſt and unalterable deſtination of man, that he ſhould earn his bread by the ſweat of his brow. And this principle is fully confirmed, in a phyſical ſenſe, by experience: he who eats without labor will never thrive. If the neceſſary proportion be not preſerved between reſtoration and ſelf-conſumption, it is impoſſible to retain health or prolong life. If we conſult obſervation, we ſhall find that

that no idler ever attained to a great age, and that thoſe who have been diſtinguiſhed by their longevity were all men whoſe lives had been extremely active and laborious.

But mental idleneſs is hurtful, as well as bodily; and I now come to a mean of ſhortening life, which perhaps my readers did not expect, becauſe it apparently makes the time appear to us ſo long: I here allude to languor.—Let us examine the phyſical effects of it a little cloſer, and we ſhall ſee that this unpleaſant ſtate of mind is by no means a matter of indifference, but that it is attended with very important conſequences to the condition of our bodies. What do we remark in a man who is ſubject to languor? He begins to yawn; this already betrays that the paſſage of the blood through the lungs is interrupted. The power of the heart and veſſels ſuffers of courſe, and becomes too torpid.—If the evil continues longer, accumulations and ſtoppages of the blood

 take

take place. The organs of digeſtion acquire a tendency to weakneſs; and inactivity and debility, melancholy, flatulency and hypochondriac affections enſue: in a word, all the functions are thereby weakened and deranged; and I think I may with truth affirm, that a ſtate which diſturbs the moſt important operations of the body, and which enfeebles the nobleſt powers, is a ſhortener of life alſo.

Languor, in a phyſical as well as a moral view, is a ſtate of danger. Weikard mentions the inſtance of a child born of poor parents, who were obliged to earn their bread by their daily labor*. The ſtate of this child, from its birth, was therefore languor. At firſt the parents ſuffered it to lie alone in its cradle, where it ſpent its time in looking at its hands and feet. When it became bigger, it was always ſhut up in a hen-houſe, where it

* In a work, which will certainly ſurvive many of its brethren, and which deſerves here the ſtrongeſt recommendation: *Weikard's Philoſophiſcher Arzt.*

could

could ſee out only through a ſmall hole. What was the conſequence? The child, when it grew up, remained heavy and ſtupid; ſhewed no ſigns of reaſon, and could ſcarcely ſpeak.

Nay, it is attended with effects ſtill more deſtructive. With a melancholy temperament, languor may at length conduct one to ſelf-murder. A dull Engliſh author, who has written a voluminous work on ſuicide, relates, that he one day met one of his countrymen who exhibited every appearance of deep thought. Whither art thou going, my friend? ſaid the author.—To the Thames, to drown myſelf!—I beg of you, replied the author, to return home for this time, and to read over my work on ſuicide.—God forbid! anſwered the other. It was reading that curſed, tedious book, which excited in me ſuch a dreadful diſguſt of life that I am now firmly reſolved to drown myſelf.

But I think I hear every one aſk, What in the world is the beſt remedy for lan-

 guor?

guor? It accompanies us to the ball, to the play-houſe, to the tea-table, in our walks; in ſhort, it is impoſſible for us to get rid of it! What you ſay is perfectly true, but it does not relieve us—There is only one, but not a very agreeable, remedy for it, and that is *regular employment*.

CHAP. X.

Over-ſtrained power of the imagination—Imaginary diſeaſes—Senſibility.

IMAGINATION was given us as the ſeaſoning of life; but, as phyſical ſeaſoning muſt not be made our daily nouriſhment, our mental life, in the like manner, muſt not abuſe this ſeaſoning of the ſoul. Too much of it will, indeed, exalt vital ſenſation; but one thereby increaſes intenſive life together with conſumption, and prevents reſtoration, as is proved by the meagreneſs of ſuch people as have fervid imaginations. Beſides, one, by theſe means, diſpoſes the body to ſudden as well as violent revolutions; which may become dangerous to life, becauſe with an overſtretched imagination it is poſſible for a ſmall ſpark to produce a moſt dreadful

 explosion.

explosion.—He, therefore, who wishes to live long, must never suffer this power of the soul to assume a superiority, or to occasion a continued state of exaltation; he will apply it to that purpose for which it was bestowed upon us, to give a higher lustre to the agreeable moments of life, to season the unfortunate or insipid, and to enliven the melancholy.

This faculty may be highly prejudicial to life, when it acquires certain tendencies, which, by their collateral effects, produce double mischief; and of these, two appear to me to be particularly dangerous, a propensity to *imagine diseases* and *too great sensibility*.

The first disease of the imagination is principally peculiar to hypochondriacs; but may be excited in those who are not physicians, if they read too many works on medicine, which they do not, like professional men, apply to the art, but to their own persons; and who, for want of sufficient knowledge, conjecture often

very erroneoufly. Of this I have feen aftonifhing inftances. Not only people who, with features perfectly regular, fuppofed that their nofes ftood awry; and who, though flender and found in every refpect, could not get rid of the idea that they were in the laft ftage of the dropfy, &c.—but I have feen a lady who, if afked, whether fhe had not this or the other local diforder, felt in a moment every fymptom of it. Having afked her if fhe had not the head-ache, fhe was inftantly feized with it; and on afking, in the like manner, refpecting the cramp in the arm, and the hiccup, both thefe affections immediately took place.

Tulpius mentions the inftance of a man, who, by reading a great number of medical and chirurgical books, became quite frantic.

Monro faw a man, who, by ftudying medicine under Boerhaave, had become hypochondriacal. Whenever he attended any of Boerhaave's lectures, he always

imagined that he was affected with the disease which had been the subject of it. By these means he was a continual living commentary on the science of physic; but he had scarcely gone half through this destructive course of medicine, when he found himself so wretched and exhausted that he was obliged to give up the study altogether.—Nay, we have had the instance of a person who imagined himself to be actually dead, and who therefore would have been starved, had not a friend, who pretended to be dead also, persuaded him that it was customary in the other world to eat a sufficient quantity daily.

The misfortune attending this weakness not only is that it occasions constant fear and dread, and that many diseases are actually excited because people suppose they are afflicted with them, but it induces patients to have recourse to useless and preposterous medicines, and to quakery without end, which often consume the body much more rapidly than

the diſeaſe itſelf would, did it really exiſt.

No leſs dangerous is the ſecond diſeaſe of the imagination, *ſenſibility;* a romantic turn of mind, melancholy enthuſiaſm. It is altogether the ſame whether one really ſuffers under diſtreſsful events, or, by reading romances and indulging ſenſibility too much, has made one's ſelf ſo feelingly alive to every impreſſion as to be overcome by the ſenſation it occaſions. Nay, the latter caſe is the more prejudicial; as the one is the natural ſtate, but the other artificial; and its affections are, therefore, more violent and ſtronger. We have already ſeen how highly deſtructive melancholy is to the vital power and to every vital movement. One may eaſily comprehend, then, how baneful ſuch a ſtate muſt be, which ſubjects the mind to continual affliction at the hazard of life, and which cannot partake in the more refined pleaſures without tears and heart-breaking ſenſations.

fensations. What extinction of all energy, of all cheerfulnefs and courage! Two years fpent in fuch a ftate of anguifh, would undoubtedly fhorten life in a confiderable degree.

CHAP.

CHAP. XI.

Poiſons phyſical as well as infectious.

BY theſe I underſtand all thoſe ſubſtances which, even in ſmall quantity, are capable of producing very prejudicial or deſtructive effects on the human body. Of theſe there is a great abundance in nature, and of various kinds. Some act violently, others ſecretly; ſome ſuddenly, others ſlowly; ſome externally, others internally; ſome viſibly, others inviſibly: and it cannot be denied that they may be claſſed among the moſt general and the moſt dangerous enemies of life.

I conſider it, therefore, very neceſſary, as an eſſential part of that univerſal knowledge which ought to be cultivated among mankind, that every one ſhould learn to know

know and to guard againſt theſe poiſons; becauſe people otherwiſe may, through mere ignorance and inattention, be liable to be poiſoned a thouſand ways. Animals have inſtinct to enable them to diſtinguiſh and to avoid poiſons: man has reaſon and experience; but theſe, in this reſpect, are far from being ſufficiently employed. My object, therefore, here, is to give mankind ſuch a comprehenſive knowledge and conception of their danger as may induce them to guard againſt theſe enemies of life.

It is a very hurtful prejudice, that people, in common, conſider nothing as poiſonous but what can be received through the mouth. On the contrary, we may be poiſoned externally, as well as internally, through every part of our bodies, ſo far as they have abſorbing veſſels; through the mouth and ſtomach, through the rectum, through the whole ſuperficies of the ſkin, the noſtrils, the ears, the genitals, and the lungs, by means of bad air. The only

only difference is, that the effects, in many parts, take place slowly; in others, rapidly; and that many kinds of poison have an effect, in particular, upon one part, and some upon another.

I divide poisons in general into two classes, *physical* and *contagious*; the latter of which are distinguished by their always being generated in a living body, and possessing the power of communicating themselves to another.

Among *physical* poisons, a knowledge of the following is particularly necessary:

Arsenic or *Orpiment*, better known under the name of rat-poison, is the most violent of all. The smallest dose (five or six grains) is sufficient to destroy a person with the most excruciating torture. Numberless are the instances of people having suffered a severe death from it, but rather through ignorance and carelessness than through intention. I am of opinion, therefore, that it would be much better if this horrid poison were entirely banished;

banifhed; efpecially as it is of fo little ufe, and is employed almoft for nothing elfe than to kill rats and mice. At any rate, it ought not to be kept by grocers and apothecaries, near drawers where there is coffee, fugar, or any article ufed as food. In the mean time, I confider it as my duty to call the public attention to a few ways in which poifoning by arfenic may very eafily be poffible; in which it often happens; and to warn mankind againft them. One of the moft frequent is, when it is ufed to deftroy vermin. If one reflects how many people have been deprived of exiftence by poifon deftined for mice, this practice ought to be altogether abandoned. Let not any one imagine that all danger may be prevented by great caution. I know an inftance where fome fweet milk, ftanding in a cellar, was poifoned by mice who who had ufed fome of it after eating rat-poifon. It is much fafer to employ for the fame purpofe poifon-nuts, (*Nux vomica)*; which are far lefs hurtful to man, but

but at the ſame time are a ſtrong poiſon for animals. Another kind of poiſoning with arſenic, leſs obſerved, is that by means of arſenical colors. Painters by profeſſion know how to ſecure themſelves againſt it; but amateurs and children ſhould be very cautious in uſing ſuch colors, and at any rate avoid that bad practice of drawing the bruſh through their mouth. Equally dangerous are toys painted with theſe colors, which ought never to be allowed. Laſtly, I adviſe every one to guard againſt a method of poiſoning with arſenic which is practiſed by quacks and mountebanks. Theſe impoſtors ſell abundance of drops, as a cure for the cold fever, which contain nothing but arſenic. They indeed often cure the diſeaſe immediately; but they occaſion conſumption afterwards, and other fatal conſequences. Let people, for Heaven's ſake! avoid all ſuch arcana.

A poiſon no leſs dreadful is *lead*. It is, perhaps, ſo far more terrible, as it acts more

more ſecretly as well as more ſlowly; does not diſcover itſelf immediately, by ſuch violent effects; and becauſe people may be completely ruined by it, before it is known that they are poiſoned. With this ſubſtance, in particular, poiſoning is poſſible ſeveral ways, which the greater part of the public have never remarked, and againſt which I muſt here put them on their guard. In the firſt place, when people daily ſwallow with their food and drink ſome portion of lead, the moſt dreadful ſymptoms, impoſſible to be cured, may at length break out, often even at the end of ſome years. This happens when victuals are dreſſed in veſſels made of tin which contains abundance of lead, or in ſuch as are badly glazed; or when one drinks wine adulterated with lead, which may be beſt diſcovered by Hahnemann's wine proofs. Another very uſual method of poiſoning is by painting the face with lead-calx; uſing waſhes made from lead, &c. All paints are prejudicial, but chiefly

chiefly the white, becauſe the whole of them almoſt contain calx of lead; and the leaden particles may be conveyed into our bodies, as well through the ſkin as through the ſtomach. Laſtly, poiſoning by means of apartments newly painted with white lead, or oil-varniſh, ought not to be forgotten. Whoever inhabit theſe too ſoon, may, in particular, receive the poiſon into their lungs, and become hectic and aſthmatic. The ſymptoms and effects of being poiſoned with lead are the following:—Pains in the bowels; dryneſs of the excrements, and obſtinate coſtiveneſs; lameneſs of the hands and feet; laſtly, a deſiccation of the whole body, and a conſumptive death.

To the ſame claſs belong alſo *quickſilver*, *antimony*, and *preparations of copper*; which ought all to be conſidered as noxious poiſons, and which ſhould be guarded againſt, particularly the laſt, in regard to cooking victuals in copper veſſels. Even the greater part of neutral ſalts, when

 uſed

uſed in too great quantity at once, and not ſufficiently diſſolved in water, may be attended with poiſonous effects.° I have met with ſome inſtances where an ounce, or an ounce and a half of alum or ſaltpetre, taken at once inſtead of Glauber's ſalts, excited every ſymptom of the moſt violent poiſon, and which could not be removed but with difficulty.

The vegetable kingdom contains a multitude of poiſons, which partly occaſion death by torpor, ſuch as *opium* and deadly nightſhade; and partly by burning and inflammation, as *mezereon* and *euphorbium*. Great miſtakes are committed here alſo through inattention. Numberleſs are the inſtances where people, inſtead of chervil (*chænopodium*) for ſallad, have uſed hemlock; inſtead of parſnips, have eat the roots of henbane; inſtead of common muſhrooms, the poiſonous kind; or uſed the berries of the nightſhade, mezereon, &c. by which they brought on death. In every ſeminary of

learning,

learning, therefore, a ſufficient knowledge of all the poiſonous plants growing in the neighbourhood ſhould be taught; and as I have not room here to deſcribe them all, I ſhall recommend a book, from which this knowledge may be acquired in the fulleſt and beſt manner*.

The poiſonous plants growing in Germany, moſt pernicious, and which it is moſt neceſſary to know and to guard againſt, are, the *belladonna*; hemlock (*cicuta*); henbane (*hyoſciamus*); wolfsbane (*aconitum*); fox-glove (*digitalis*); nightſhade (*ſolanum*); darnel (*lolium temulentum*); mezereon (*Daphne*); ſeveral ſorts of the ranunculus; poiſonous lettuce (*lactuca viroſa*); and the laurel-cherry (*lauroceraſus*). To theſe belong alſo bitter almonds, which, according to the lateſt experiments, contain a deadly poiſon, not inferior to that of the laurel.

* *Halle Teutſche giftpflanzen zur verhütung trauriger vorfalle, mit illum. kupf.* Two volumes, third edition.

The air even, in which we live, can be poiſoned ſo as to deſtroy us either ſuddenly or ſecretly. I ſhall here ſpeak, in the firſt place, of that poiſon which we ourſelves communicate to the atmoſphere by living and breathing. Living beings conſume, in a certain quantity of air, that pure ſubſtance which we call vital air; and, in place of it, give back an impure ſubſtance not fit for breathing. If a great multitude of people are ſhut up in a ſmall ſpace, death may ſoon be the conſequence*. If the ſpace be larger, and the number leſs, though death may not enſue, the effects may be ſtill prejudicial. All places, therefore, where numerous bodies of people are crowded together, ought to be avoided; particularly when they have not a ſufficient height or free paſ-

* This is ſufficiently proved by the dreadful inſtance which happened in the black hole at Calcutta, where, of 146 Engliſhmen, confined ſcarcely twelve hours, 123 were deſtroyed by the air being thus poiſoned. See *Zimmermann von der Erfarung*.

ſage for the air. This is moſt frequently the caſe in play-houſes. One of the ſureſt ſigns of the air being poiſoned, is when the lights will no longer burn clear and readily, or here and there go out of themſelves. In an equal degree is it then unfit for life, becauſe fire and life require the ſame part of the air for their ſupport. Thoſe who keep their ſitting apartments or bed-chambers always cloſely ſhut, expoſe themſelves to a ſlow poiſoning of the like kind. In the ſame manner may the air be poiſoned when a great many lights are kept burning in a cloſe room. And the caſe is the ſame when one ſleeps in a cloſe bed-chamber where coals are burning, by which death is often the conſequence. When one keeps in a cloſe bed-chamber, during night, a great many plants and ſhrubs, the air experiences a ſimilar kind of poiſoning; while, on the other hand, the ſame plants, in the day time, and expoſed to the ſun, render the air more pure and wholſome. Evapora-

tion from putrid ſubſtances is capable of producing the like effect. The ſtrong ſmelling effluvia of flowers can communicate to the air, in cloſe apartments, a pernicious, and even a deadly quality alſo; and therefore it is not proper to keep in one's bed-chamber ſtrong-ſcented flowers, ſuch as the narciſſus, roſes, &c.

But far more important and dangerous appear to me the claſs of *infectious poiſons*, to which I now proceed; and I earneſtly requeſt that my readers will pay the utmoſt attention to the obſervations I ſhall make reſpecting them. Concerning phyſical poiſons, people may always procure information: there are works which treat of them; they are known, and conſequently can be avoided. With infectious poiſons the caſe is quite different. They have been overlooked, as unavoidable and neceſſary evils; they have not been much conſidered as poiſons, but in regard to the diſeaſes which they occaſion; people poiſon, and are poiſoned; and this dreadful

ful ſecret trade is carried on daily and hourly, without men knowing or reflecting what they are about. Phyſical poiſons, as is proper, have been ſubjected to police laws: the State takes care that they ſhall be carefully kept, and that the uſe of them be limited; and thoſe who wilfully adminiſter them to others, are treated as criminals, and puniſhed. The infectious poiſons, on the other hand, are reſtrained by no laws, by no police ordinances: they exerciſe their ravages among us without interruption; the huſband poiſons the wife, the ſon the father; and no one takes any trouble to remedy this evil.—Laſtly, phyſical poiſons hurt only the individual; whereas the infectious poſſeſs the peculiar power of reproducing themſelves in every living being, and of multiplying without end; they injure, therefore, not only thoſe poiſoned, but render them new ſources by which whole neighbourhoods and diſtricts may be infected.

I could here produce the moſt melan-

choly inſtances of men who merely through ignorance were poiſoned in this manner; and of ſome who infected others, even their neareſt friends, becauſe they were unacquainted with theſe poiſons, and the way in which they are propagated. I, therefore, conſider a knowledge on this ſubject ſo neceſſary, and ſo defective among the public, that I with pleaſure embrace the preſent opportunity of ſaying ſomething upon it, which may be of general utility.

Infectious poiſons are ſuch as can be no otherwiſe generated than in a living body; and which poſſeſs the power of reproducing themſelves when communicated to another, and of giving riſe to the ſame corruption and diſeaſe which prevailed in the former. Each claſs of animals has one peculiar to itſelf, and which does not take any effect upon another. Thus mankind have ſome which do not attack animals; for example, the venereal poiſon, and the ſmall-pox, &c. Animals, on

on the other hand, are fuſceptible of ſome which do not affect men; as, the diſeaſe among horned cattle, and the glanders among horſes. I am acquainted with only one peculiar to men as well as animals, and that is the poiſon of canine madneſs.

A very remarkable difference between theſe poiſons is, that ſome of them never appear again without freſh external infection; as, the venereal poiſon, and thoſe of the ſmall-pox, meaſles, leproſy, and plague: while others may be again produced, without infection, merely by corruption, and certain changes which take place in animal bodies; and among the latter claſs are, the poiſon of the itch, of putrid fevers, the conſumption, &c. It has, therefore, been often aſked, Whence did the poiſons of the firſt claſs ariſe? And, indeed, it is difficult to anſwer this queſtion. The analogy of the latter claſs, however, allows us to ſuppoſe that they

were

were firſt generated in the human body, but through ſo rare a concurrence of external as well as internal circumſtances that thouſands of years, perhaps, muſt be neceſſary before the ſame thing can again happen. It hence follows, that theſe poiſons, as they muſt always, in order to continue, be produced in a human body, may again ceaſe, as ſoon as they have been deprived, either by accident or precautionary regulations, of an opportunity to re-generate—A conſoling reflection, on which the extirpation, or at leaſt baniſhment of them from certain diſtricts depends; and of the truth of which we may be convinced by finding that ſome of theſe poiſons, ſuch as thoſe of the plague and leproſy, have, by wiſe eſtabliſhments, been driven from among civiliſed nations. But this conſequence is alſo equally well founded, that, by a new concurrence of uncommon circumſtances and corruption in the bodies of animals,

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an entirely new poiſon of the like kind, hitherto unknown in the world, may be again created.

Before all theſe kinds of poiſon, however, can have effect, there is neceſſary, not only a communication or infection from without, but alſo a certain diſpoſition or ſenſibility of the body. Hence that remarkable phenomenon, that many can be poiſoned very eaſily, ſome with difficulty, and many not at all; nay that many of theſe poiſons can affect us only once, becauſe, by being once poiſoned, the whole ſenſibility of the body, in regard to the infection, is deſtroyed; as we find to be the caſe in the ſmall-pox and meaſles.

Infection may apparently be communicated in a great variety of ways; but it is always confined to this ſimple principle, that *immediate contact with the poiſon is neceſſary before it can be conveyed to another.* This, however, muſt be properly underſtood. One may come into immediate

contact with the poison, either by touching the body of a diseased person, or any other body with which the poison is united, or to which it has attached itself; as, for example, parts separated from a person diseased, excretions, clothes, furniture, &c. A very few poisons of this kind have the property of diffusing themselves through the atmosphere, as those of the small-pox, measles, and putrid fevers; but this contaminated air remains poisonous only in the neighborhood of the diseased, or, in other words, the atmosphere only around the diseased person is poisonous. If it be, however, mixed with and thinned by purer air, like every other poisonous solution, such as that of sublimate, it ceases at length to have a poisonous effect; that is to say, the poison cannot be conveyed by the atmosphere to any distance.

My principal view, here, is to enable that part of the public unacquainted with physic to guard against these poisons; or,

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what cannot be a matter of indifference to any perſon of benevolence, to avoid communicating the poiſon to others when one is infected. I ſhall therefore, firſt, give a few rules how people may ſecure themſelves from infection in general; and then treat ſingly of thoſe kinds of poiſon which appear moſt commonly among us, and ſhew how they may be diſtinguiſhed and avoided.

The beſt means by which people, in general, may ſecure themſelves from infection of every kind, conſiſt in the following rules:

1ſt. Pay the utmoſt attention to cleanlineſs; for the greater part of the poiſons of this kind are conveyed to us through the external ſurface of our bodies: and it is fully proved, that poiſon, already communicated, has been by cleanlineſs removed before it could actually produce any bad effect. I here allude, in particular, to frequent waſhing, bathing, rinſing the

the mouth, combing the hair, and often changing the linen, clothes, and bed.

2d. Be careful to admit pure air into your apartments, to enjoy the free air often, and to give the body proper exercise. By these means, one will preserve the perspiration and vital power of the skin; and the more active these are, the less danger is to be apprehended from external infection.

3d. Let people endeavor to keep themselves in good spirits, and to preserve serenity of mind. Such a disposition is best calculated to support the counteracting power of the body, free perspiration, and the outward tendency of the juices, by which the catching of infection is much prevented. This rule is particularly to be recommended where putrid fevers prevail; and there also a glass of good wine may be serviceable.

4th. Avoid coming into close contact with people, the physical state of whose bodies

bodies you do not perfectly know; and, in particular, beware of touching them with parts which have no ſkin, or one exceedingly delicate and tender; ſuch as wounds, the lips, the nipples of the breaſt, or privities; as, by theſe, infection is ſooneſt imbibed. Of the like nature is the touching of ſubſtances which a little before may have contained human parts or excretions; ſuch as glaſſes, ſhirts, under-clothes, gloves, tobacco-pipes, cloſe-ſtools, &c. uſed by others.

5th. When infectious diſeaſes are prevalent in any diſtrict, I would ſtrongly adviſe people not to go abroad at night, becauſe one imbibes infection much more readily in the night than the day time; likewiſe to take ſomething before one goes out; and, if one has been accuſtomed to it, to ſmoke a pipe of tobacco.

I ſhall now proceed to treat ſeparately of the different kinds of infectious poiſons which appear among us.

1. *The*

1. *The venereal poiſon.*

MELANCHOLY has been the fate of modern times ſince this poiſon was firſt known and propagated; and melancholy are the ſenſations which muſt ariſe in every friend of humanity who conſiders its nature and progreſs! What are all, even the moſt deadly poiſons, in regard to mankind in general, when compared with the venereal? This alone poiſons even the ſources of life; embitters its ſweeteſt enjoyments; deadens and corrupts the germ of human nature in the beginning of its exiſtence; extends its influence to future generations; inſinuates itſelf privately into the circle of domeſtic felicity; ſeparates children from their parents, one race from another; and diſſolves the moſt ſacred bonds of mankind. Beſides, it belongs to the claſs of ſecret poiſons; and does not always equally betray itſelf by violent ſymptoms that at-

tract

tract attention. One may be completely poiſoned without knowing it; and then this deſtructive conſequence enſues, that people ſuffer it to take deep root before the neceſſary means are employed againſt it, and alſo poiſon others without knowing or intending it. For the like reaſon, one never can be ſure that one is perfectly cured; and one muſt often ſpend one's whole life in this dreadful ſtate of uncertainty. If it then attain to its full height, what diſguſting havoc does it not make in the human frame! The body is covered with the moſt loathſome ulcers; the bones become carious; whole parts rot away; the bones of the noſe and palate are loſt, and with theſe ſpeech and the beauty of the face; the unfortunate ſufferer is tormented with acute pains in the marrow of the bones, particularly during the night, which convert the period of reſt into a period of excruciating torture.

In a word, the venereal poiſon unites

in itſelf every thing painful, loathſome, lingering, and terrible, that a poiſon can have:—and yet we ſport with this poiſon; honor it with the ingenious and agreeable name of the diſeaſe of gallantry; trifle with it as we would with a cough or a cold; and delay, both publicly and individually, to employ the moſt effectual means againſt it at the proper time! No one ever thinks of checking the continual progreſs of this ſecret plague; and my heart bleeds—when I ſee how the country people, once ſo blooming and robuſt, the proper ſtock for ſupporting a hardy race of men, have, even in our neighbourhood, where the name of this poiſon was not ſo much as known, begun, through their connexion with the city, to be infected with it—when I ſee it common in towns where it rarely made its appearance twenty years ago, and find it proved that in others two thirds of the inhabitants are venereal—when I caſt a look at futurity, and perceive that, by the farther

farther uninterrupted activity of the poison, it muft become unavoidable; that at length all, even the moft refpectable families, by nurfes and nurfery-maids, will be infected with it—when I obferve before me melancholy inftances, as was the cafe lately, of the moft regular and virtuous men being expofed to its ravage without knowing it, without illicit indulgence; and that it even may unjuftly vifit the cot of innocence!

It is high time to put a ftop to the progrefs of this corruption, fo tenacious of its hold; and I fee no other means of effecting this than by endeavoring to preferve greater purity of morals, efpecially in the higher claffes of life; good police eftablifhments in regard to health; enlightening the people refpecting the nature of the poifon, the dangers which attend it, and particularly its fymptoms and the means of preventing it. The firft we muft leave to the wifdom of our rulers; and undoubtedly that circum-

ſtance will no longer remain a matter of indifference. To the latter I ſhall endeavor to contribute by the following information.

The ſymptoms, then, of a perſon being poiſoned in this manner, are:

1ſt. If one has recently touched another perſon with any tender part covered by no ſkin, or only a very delicate one, or any thing capable of retaining animal particles.

2d. If one, ſome time after (generally within the courſe of four weeks) obſerves in that part one or more of the following appearances: ſmall white ulcers, which do not heal; warts, or ſmall fleſhy excreſcences; inflammation, or a running of matter, if it be a part which ſecretes matter; alſo buboes, pains, and hard ſwellings in the glands of the groin—When ſuch ſymptoms appear, one is already poiſoned, though at firſt only locally; but it is then highly neceſſary to conſult immediately an experienced practitioner, that the poiſon

ſon may be checked before it inſinuate itſelf into the juices, and corrupt the whole body.

3d. But when the glands begin to ſwell in remote parts; ſores of different kinds, ulcers, or warts to appear; and, in particular, when the throat and the palate begin to be affected, the eyes to be inflamed or continually red, ſcabby leprous ſpots to ariſe in the forehead, then one may know that the whole body is penetrated by the poiſon, or that the infection is general.

The rules for guarding againſt the venereal poiſon may be reduced to the following:

1ſt. Avoid carnal intercourſe with any female of whoſe good ſtate of health you have not the fulleſt proof: and as there is a ſtage of the venereal diſeaſe which cannot be known by any external ſigns, it therefore follows that one can never be certain, and that the only ſure preſer-

vative is to have no amorous connexion with the fair ſex but in wedlock.

2d. Kiſs the lips of no perſon with whoſe phyſical ſtate of body you are not perfectly acquainted: it is therefore very imprudent to ſalute by kiſſing, as is ſo often done merely through politeneſs. And I cannot help ſhuddering, when I ſee pretty children careſſed in this manner, in the ſtreets, by every paſſenger:—ſuch a practice ought never to be permitted.

3d. Sleep with no perſon whom you do not well know.

4th. Put on no ſhirt or under-clothes, and uſe no bed, in which another perſon, with whom you are not well acquainted, has recently ſlept. In inns, therefore, people ought to ſee clean ſheets put upon their beds, or to lie down in them without pulling off all their clothes.

5th. Never put in your mouth any thing that has been a little before in the mouth of another, ſuch as a tobacco pipe,

pipe, muſical inſtrument, drinking glaſs, ſpoon, &c. *

6th. In privies carefully avoid touching with the genitals any place where a perſon, perhaps infected, has been ſitting a little before. The like precaution ought to be obſerved in regard to public glyſter-pipes and other neceſſary inſtruments.

7th. Communication through the breaſt is of great importance, and deſerves the utmoſt attention. A venereal nurſe may infect the child; and, in the ſame manner, a venereal child may infect the nurſe. How carefully then ought all nurſes to be examined, eſpecially in great cities! Stoll once found, among forty women who preſented themſelves as nurſes, one only who was free from ſuſpicion, and whom he could

* People ſhould never put into their mouths tobacco pipes which have been uſed, eſpecially in places where the venereal diſeaſe is common. A caſe occurred to me, not long ago, where the patient had bad venereal ulcers in the mouth, merely from ſmoking with a pipe of that kind.

venture to recommend.—But the women employed in many places for ſucking a mother's breaſts are not to be overlooked. If they are venereal, they may communicate the poiſon to the perſon whom they ſuck; and there have been inſtances of ſuch women infecting a great many virtuous and reſpectable mothers.

8th. In every operation of midwifery the greateſt precaution is neceſſary, not only on the part of the accoucheur, who, if he has a ſmall wound in the hand, may be readily infected by a diſeaſed mother; but alſo on the part of the mother, who may be infected, during the delivery, if the midwife have on her hands venereal ulcers.

2. *Poiſon of the ſmall-pox and meaſles.*

Both theſe poiſons are always known by a fever and eruption on the ſkin. The former occaſions ſuppurating puſtules; the latter, ſmall red ſpots; and neither of them

them ever acts twice as a poiſon in the ſame body.

Both may be eaſily avoided, by taking care not to touch the poiſon, perſons affected with it, any part ſeparated from them, ſuch things as they may have touched, or the atmoſphere near them. For, that the poiſon of the ſmall-pox can be conveyed by the air, and prove infectious at a great diſtance, is a falſehood long ſince exploded.—It is, conſequently, certain beyond all doubt, that both theſe diſeaſes are not neceſſary to man; that they can be prevented; and, when that is done generally, may be extirpated, as has been the caſe in ſome inſulated countries. But as there is little hope that this will everywhere take place as long as men are not altogether convinced of the poſſibility of it, and as ſome phyſicians even here and there oppoſe it, nothing remains but to render the poiſon, which unfortunately, under the preſent circumſtances, we muſt conſider as a neceſſary evil, as mild

mild and harmleſs as poſſible; and according to all experience, there are no other means to accompliſh this than the artificial method of communicating it by *inoculation.*

3. *Poiſon of the itch.*

UNDER this title I underſtand that matter which can tranſmit itſelf from people affected with the itch to others perfectly free from it, and communicate to them the ſame diſeaſe. Whether it be animated or not, I ſhall not here enquire; nor does that make the leaſt difference in regard to the infection.

This poiſon communicates itſelf by immediate and cloſe contact, but never through the atmoſphere. It may alſo be very eaſily prevented, by avoiding to touch perſons who have the itch, or any thing they have worn. Great cleanlineſs alſo in clothing, and in regard to air, with often waſhing and bathing, are the beſt

means

means for guarding against this diſorder; and therefore it is ſeldom found among people in genteel life, who keep themſelves clean. If one, however, is obliged to live with thoſe who have it, and cannot altogether avoid touching them, I recommend to them, as a very powerful preſervative, to diſſolve in water two pounds and an ounce of common ſalt, with a quarter of an ounce of ſaltpetre, and to waſh with it frequently their hands and their face.

4. *Poiſon of putrid fevers.*

THIS may be generated by any putrid fever when it is violent; and can be communicated then, not merely by touching, but by the atmoſphere near the patient. People ought, therefore, if it be in their power, never to approach thoſe who have ſuch diſeaſes. Should that, however, not be poſſible, let the following precautions be obſerved;—Do not ſwallow your ſaliva

as long as you are near the ſick; do not place yourſelf ſo as to be expoſed to their breath; do not touch them; do not viſit them in woollen clothes, or with furs about you, becauſe theſe moſt powerfully retain infection; as ſoon as you leave the ſick perſon's chamber, change your clothes, waſh yourſelf, and rinſe your mouth. It is very beneficial alſo, as long as you remain with the diſeaſed, to hold a ſpunge dipped in vinegar before your mouth and noſtrils, or to ſmoke tobacco.

This poiſon, however, is, for the moſt part firſt generated by the ignorance or prejudice of mankind; for any common fever may be converted into a putrid one; and, for that reaſon, I muſt ſay a few words more on the ſubject by way of precaution. This is moſt commonly and with the greateſt certainty done when too many ſick perſons are crowded together; and therefore, in lazarettos, priſons, and ſhips, the moſt inſignificant fever may readily become putrid; when the air is

not

not renewed in the patient's apartment; when the patient is buried in bed-clothes, and the bed-chamber made hot; when he is ſuffered, in the beginning of his diſorder, to eat rich ſoups, and to uſe wine, brandy, and meat; when his clothes are not changed; when he is not kept clean; and when one rejects internal medicines, or does not early call in the aſſiſtance of a judicious phyſician. By all theſe any fever may be rendered putrid; or, what is the ſame, the putrid poiſon may be generated in the patient's apartment, and be thence diffuſed ſo as to infect a whole city.

5. *Poiſon of canine madneſs.*

THIS poiſon is generated in men and animals who have the hydrophobia. It is, in particular, mixed with the ſaliva; and can neither be conveyed through the air, nor communicated by mere contact; but muſt be applied to a wound, as

 by

by a bite, or to ſome part with a tender epidermis, ſuch as the lips and genitals. One may, therefore, eaſily guard againſt it by avoiding ſuch contact. Three rules, however, ought ſtrongly to be recommended:—Keep no uſeleſs dogs; for the more of theſe animals there are, the more frequently may this poiſon be generated. Give your dogs always a ſufficiency of drink; allow them to gratify their deſire with females; and never ſuffer them to be expoſed to a ſudden change, from heat to cold, or from cold to heat. Watch carefully and tie up any dog that refuſes to drink; that begins to behave in an unuſual manner; to pay no attention to his maſter; and to bark hoarſely *.

The effects of this dreadful poiſon are,

* The cleareſt ſymptoms of a dog being mad are, that he lets his ears and his tail hang down; that his eyes water; and that he runs ſtraight forwards with his head towards the ground. An excellent deſcription of a dog in this ſituation, may be found in Hahnemann's *Freund der Geſundheit*, Part 1ſt.

that

that the patient, in a ſhorter or longer time, is ſeized with madneſs and the hydrophobia, and dies in the moſt horrible convulſions. It is fortunate, therefore, that it has been diſcovered, by many experiments, that this poiſon, even when communicated through a bite, may remain a long time in the wound before it is imbibed and diffuſed throughout the whole body. For this reaſon, one may free one's-ſelf from it after being infected, and prevent the hydrophobia by the following means:—The wound muſt be immediately waſhed with ſalt water; it muſt then be cupped, and inciſions muſt be made and the blood ſucked out ſo often until no more blood can be drawn from it. It ought then to be burnt with a red hot iron, or gun-powder; and kept in a ſtate of ſtrong ſuppuration for ſeven or eight weeks. The *belladonna* may be taken inwardly, as the beſt preventative; but the advice of a phyſician will be here neceſſary.

6. *Some*

6. *Some other accidental poiſons.*

THERE are ſtill a few more infectious poiſons, which are generated by ſome diſeaſes, not always, but under certain circumſtances. The diſeaſes which produce them are, the ſcurvy, the cancer, ſcarlet fever, ſcald head, dyſentery, conſumption of the lungs, the gout, and the ague. Theſe diſeaſes are by no means generally infectious; but they may become ſo when they have attained to a high degree of malignancy, or when they are united with a putrid habit of body. In that caſe great precaution is to be recommended; and, at any rate, to avoid cloſe intercourſe with people affected by them; that is to ſay, one ought not to live in the ſame apartment with them, to ſleep with them, to wear their clothes, &c.

CHAP. XII.

Old age—Premature engrafting of it on Youth.

THIS is the moſt unavoidable of all thoſe means that tend to ſhorten life! It is a ſecret thief, as Shakeſpear calls it—the neceſſary conſequence of life itſelf: for, by the vital proceſs, our veſſels muſt become gradually more deſiccated and unfit for uſe, our juices more acrid and leſs, the ſmaller veſſels ſhrivelled, the organs incapable of performing their functions; and the earthy part, the ſureſt means of our deſtruction, muſt gain a ſuperiority.

It cannot, therefore, be altogether prevented. The queſtion only will be: Is it in our power to bring it on ſooner or later? And, unfortunately, this queſtion muſt be anſwered in the affirmative. Mo-

dern times afford us aſtoniſhing inſtances of the poſſibility of bringing on premature old age, and of cauſing the periods of life to follow each other much more rapidly. We may ſee at preſent, particularly in great cities, men come to maturity in their eighth year; in their ſixteenth, attain to the higheſt point poſſible of their perfection; in their twentieth, ſtruggling with every infirmity—a proof that they are already on the decline; and in their thirtieth, have every appearance of exhauſted age, ſuch as wrinkles, dryneſs and ſtiffneſs of the joints, a crooked ſpine, loſs of ſight and memory, grey hair, and a tremulous voice. I have actually diſſected the body of ſuch an artificial old man, who had ſcarcely attained to the age of forty; and found not only his hair grey, but the cartilages of the ribs, which do not become bones but at the greateſt age, totally oſſified.

One, therefore, can imitate by art, in our climates, that haſtening of the periods

riods of expanſion as well as of old age, which, in warm countries, takes place naturally.

I muſt now ſay a few words on the art of engrafting old age on youth. This is done by weakening very early the vital power as well as the juices, and giving to the veſſels the higheſt poſſible degree of hardneſs, ſtiffneſs, and want of pliability, which characterizes old age.

I ſhall here lay before my readers the ſureſt means to accompliſh this, as it is of importance to know ſuch preſcriptions, in order that people may be better enabled to counteract them. If one, therefore, will only live altogether contrary to the following rules, one may be enabled to preſerve one's ſelf in a ſtate of youth to an advanced period of life.

1ſt. Endeavor, by every art phyſical and moral, to attain to maturity as ſpeedily as poſſible, and waſte the generative power with as much profuſion as poſſible.

2d. Begin very early to expoſe yourſelf to the utmoſt fatigue. Forced journeys of ſeveral days, continual dancing, ſitting up all night, and ſhortening every period of reſt, will, in this reſpect, be of moſt ſervice. By theſe means you will accompliſh two objects, that of ſpeedily exhauſting the vital power, and that of making the veſſels ſoon hard and brittle.

3d. Drink abundance of wine and ſtrong liquors. This is an excellent preſcription to deſiccate the body, and to make it become ſhrivelled.

4th. Care, fear, and ſorrow, are extraordinarily well calculated to bring on, very early, every characteriſtic of old age. We have inſtances of perſons acquiring grey hair in the courſe of one night ſpent under the higheſt degree of grief and terror.—Now, one might believe, that certain cauſes are abſolutely neceſſary to produce theſe affections: but there are people who underſtand, in a maſterly manner,

manner, the art of ſeeing every thing in a melancholy light, of dreading ſome evil from every man, and of finding in the moſt common circumſtances abundant matter to excite wretchedneſs and miſery.

5th. That ſyſtem, carried too far, or at leaſt badly underſtood, of hardening the organs by the means of cold, bathing frequently and for a long time in cold water, &c. may be here added. Nothing can be more proper to produce every ſymptom of age.

But it is not enough that people now attain to old age, in a period during which our anceſtors were ſtill young:—they unfortunately go farther. They have found out the art of bringing into the world children with old age upon them. Such phenomena I have ſometimes ſeen. Theſe ſhrivelled beings enter upon the ſtage of life with the ſtrongeſt features of age; and, after two weeks ſpent amidſt miſery and crying, they cloſe their aged life, or

rather begin exiſtence by ending it. But I ſhall draw a veil over theſe horrid productions of parental diſſipation, which appear to me like the embodied ſins of the parents.

BOOK II.

MEANS WHICH PROLONG LIFE.

CHAP. I.

Good phyſical deſcent.

If we take a retroſpect view of the principles on which longevity depends, and the properties neceſſary for promoting it, we ſhall readily perceive that much in particular will depend on the maſs from which we are formed; what quantity of vital power is communicated to us at our creation; and whether a foundation be then laid for a ſtrong or a weak conſtitution, a ſound or a diſeaſed ſtructure of the vital organs. All this is intimately connected with the healthful ſtate of our pa-

rents, and the important point of our firſt exiſtence; and, in that ſenſe, to be of *good birth*, is what ought to be wiſhed in regard to every man. It commonly belongs to thoſe unknown yet important benefits which we receive; and is a mean of prolonging life. This advantage, however, we are not able to procure to ourſelves; but we have it in our power, and it is our duty to communicate it to others.

Three points are here to be conſidered: the ſtate of health in which the parents are; the moment of generation; and the period of pregnancy.

1*ſt*. *The ſtate of health or the vital ſtock of the parents.*—How important this is may be ſeen by the inſtance of whole families in which longevity has been as it were a privilege; like the family of the before-mentioned Parr, who not only attained to a great age himſelf, but alſo his father and children. In the longevity of parents lies a great ground for enabling their children to attain to the ſame. This, there-

therefore, ought to be a powerful motive to induce thoſe who intend to have children, to ſpare and preſerve their vital power as much as poſſible. We are a copy of our parents; not merely in regard to the common form and texture, but in reſpect to particular weakneſſes and faults of ſingle parts. A foundation even for diſeaſes, which have their root in our ſtructure and conſtitution, may be thus communicated; as, the gout, ſtone, aſthma, and hæmorrhoids. I am convinced, above all, by repeated experience, that great weakening of the generative power by debauchery, perhaps even a modified venereal poiſon, communicates to children a peculiar weakneſs of the glandular and lymphatic ſyſtem, which ends in the ſcrophula, as it is called; and occaſions this diſeaſe to appear in the firſt months of life, or even at the very birth.—The too youthful or too great age of the parents is likewiſe prejudicial to the ſtrength and vital duration of the children.

2d. *The*

2d. *The moment of generation.*—This is of much more importance than commonly believed, and has great influence, both in a moral and phyſical view, on the life of the future being. The firſt germ of a new creature is here quickened; the firſt vital power is communicated to it. How much muſt the perfection or imperfection of the produce be determined by a perfect or imperfect, ſound or diſeaſed, condition of the active cauſes? Is it not to be wiſhed that parents would pay ſome attention to this remark, and never forget that the above moment is of the utmoſt importance; that it is the moment of creation; and that Nature, not without reaſon, has connected with it the higheſt exaltation of our exiſtence? However difficult it may be to collect obſervations from experience on this ſubject, I have known ſome undeniable inſtances, where children, begotten in the moment of intoxication, remained ſtupid and ideots during their whole life. Now, what

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can be effected by the higheſt extremity, may be done, on a ſmall ſcale, by a mean degree; and why ſhould it not be admitted, that a being procreated at the period of ill-humor, bodily indiſpoſition, or nervous debility, may carry with it, during its whole exiſtence, ſome ſmall particles of theſe evils? Hence the evident preference of the child of love to the children of duty. In my opinion, therefore, it is of the utmoſt importance, even in the married ſtate, that this moment ſhould be confined to a period when the ſenſation of collected powers, ardent paſſion, and of a mind cheerful and free from care, invites to it on both ſides; and this forms a new ground againſt the too frequent, forced, or mechanical enjoyment of wedded love.

3d. *The period of pregnancy.*—Though the father, without doubt, is the original ſource from which the future being acquires its firſt quickening, its earlieſt breath of life, the general maſs and moſt

material

material part proceeds entirely from the mother. The latter is the ſoil from which the ſeed derives its juices; and the future conſtitution, the proper ſubſtance of the child, muſt principally aſſume the character of that being of whom it makes ſo long a part, and of whoſe fleſh and blood it is actually compoſed. Beſides, not only the conſtitution of the mother, but alſo other favorable or unfavorable cauſes, during the time of pregnancy, muſt have a great influence on the whole formation and life of the being. This is confirmed by experience. The child's ſtate of health, and the greater or leſs ſtrength of its conſtitution, are determined, in a particular manner, much more according to the condition of the mother, than that of the father. By a weakly father a robuſt child can always be produced, provided the mother has a ſound and vigorous body. The ſubſtance of the father is, as it were, in her ennobled. On the other hand, the ſtrongeſt man will never obtain a lively, healthy

healthy child, from a mother who is weak and ſickly.

With regard to the protection of the child during pregnancy againſt all dangers and hurtful effects, we find a regulation which diſplays the provident care of Divine Wiſdom. Though the moſt intimate connexion ſubſiſts between it and the mother, and though for nearly a year it forms a part of her, and partakes of her nouriſhment and juices, it is ſecured not only againſt accidental injuries by its ſituation and floating in a watery fluid, but alſo againſt moral and nervous impreſſions by there being no nervous connexion between it and the mother. We have, therefore, numerous inſtances of the mother dying, while the child continued alive.—Nature has even conjoined with this ſtate a certain immunity from ſickneſs; and it is a principle eſtabliſhed by experience, that a pregnant woman ſuffers much leſs from infectious and other cauſes of diſeaſe; and that a female has never a greater

greater probability of living than while in that condition.

So much have mankind been, at all times, impreſſed with the importance of this period, that, among ancient nations, a pregnant woman was conſidered as a perſon ſacred and ſecure from injury, and that every one who hurt or ill-treated her was thought deſerving of double puniſhment.—Our age, unfortunately, has here made a difference, both in a phyſical and a political view. The weak nerved, ſenſible, and delicate conſtitution of the female ſex, at preſent, renders the preſervation of the fruit in the mother's womb much more uncertain and dangerous. The womb of the mother is no longer a place of ſafety—the undiſturbed workhouſe of Nature. Through that unnatural ſenſibility which is now ſo peculiar to a great part of our women, they are become far more ſuſceptible of a thouſand prejudicial effects—a multitude of paſſions; and the fruit ſuffers by every men-

tal affection, every alarm, every cauſe of diſeaſe, and even by the moſt trifling accident. It is, therefore, impoſſible that a child, in a place where its formation and expanſion are every moment interrupted and diſturbed, ſhould acquire that degree of perfection and ſtrength to which it was deſtined. And yet little attention do mankind pay, either in a civil or political point of view, to the importance of this condition. Who thinks, at preſent, on the ſacredneſs of a pregnant woman; or, who regulate their behaviour to her, by reflecting that the life, or at any rate the phyſical and moral formation, of a future being, may thereby be endangered? Nay, how few pregnant women take that care of this condition which it deſerves? and how few are able to deny themſelves that pleaſure and thoſe gratifications which may be attended with miſchief?

In my opinion, therefore, the following rules may, with great propriety, be founded on theſe obſervations:

1ſt. Such highly weak-nerved and ſenſible people ought never to marry; if not through a regard for themſelves, and on account of the ſufferings which they may thereby avoid, at any rate out of compaſſion for the miſerable race of which they would be authors. In the education of daughters, people above all things ſhould be attentive to guard againſt this unfortunate ſenſibility; becauſe, from a regard for the complexion, for decency, and a multitude of other points which belong merely to etiquette, a contrary conduct is obſerved. And, laſtly, it is the duty of every man, when he chooſes a wife, to be particularly careful that her nervous ſyſtem be not too irritable. Should this be the caſe, the principal object of marriage, to produce ſound and robuſt children, is entirely loſt.

2d. Women ought to pay more attention to this period, and to obſerve a good moral as well as phyſical regimen; for they have then in their power the degree

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of perfection or imperfection of the good or bad ſtructure of the mind and body of their child.

3d. Men, in general, ſhould have reſpect for a pregnant woman in this point of view, and, as the depoſitary of a human being during its ſtate of formation, treat her with every care, tenderneſs, and attention—Every huſband, in particular, ought to make this a duty; and to reflect that he thereby watches over the life and health of his offspring, and deſerves, in the fulleſt ſenſe, the title of *father*.

CHAP. II.

Prudent phyſical education.

THE phyſical treatment during the two firſt years of exiſtence is, in particular, a very important circumſtance in regard to the prolongation of life. That period ought properly to be conſidered as a continued generation. The firſt part only of formation and expanſion takes place in the mother's womb; the ſecond, which is no leſs important, takes place without it during the two firſt years of life. A child comes into the world as a being only half finiſhed. The moſt important and delicate expanſion, that of the nerves and organs of the ſoul, the organs of reſpiration, the muſcular ſyſtem, the teeth, the bones, the organs of ſpeech, and all

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the other parts, both in regard to form and ſtructure, now follows. One may readily comprehend, therefore, what influence the different circumſtances, under which this continued proceſs of formation and expanſion is carried on, whether they act ſo as to impede, derange, and weaken, or to accelerate, muſt have on the perfection and duration of life. A foundation may certainly be here laid for ſlow or rapid conſumption; for a body expoſed to more or to fewer dangers.

All the precepts and rules reſpecting this period may be reduced to the following principles:

1ſt. All the organs, but in particular thoſe on which health and the duration of phyſical as well as ſpiritual life chiefly depend, muſt be completely formed, exerciſed, and brought to the higheſt degree of perfection. Among theſe I reckon the *ſtomach*, the *lungs*, the *ſkin*, the *heart*, the *vaſcular ſyſtem*, and the *organs of thought*. A foundation may be laid for

good lungs, by pure open air; and afterwards, by ſpeaking, ſinging, running: for a ſound ſtomach, by wholſome food, eaſy of digeſtion; but neither too ſtrong and ſtimulating, nor too highly ſeaſoned: for a ſound ſkin, by cleanlineſs, waſhing, bathing, pure air, a temperature neither too hot nor too cold, and, afterwards, by exerciſe: and for a ſtrong heart and veſſels, by all the above means; in particular, by wholſome nouriſhment, and afterwards by bodily motion.

2d. The ſucceſſive expanſion of the phyſical and ſpiritual powers muſt be properly ſupported; and be neither impeded, nor too much promoted. Attention muſt be always paid to an uniform diſtribution of the vital power; for harmony and equality in the motions are the foundation of health and life. Bathing and free air will contribute to this in the beginning, and afterwards bodily exerciſe.

3d. The ſenſation of the body in regard to diſeaſe, that is to ſay, its ſuſceptibility

bility of the caufes of difeafe, muft be hardened and blunted; as alfo its fenfation of cold and heat, and afterwards that of fmall irregularities and fatigue. By thefe means two advantages will be gained: vital confumption, by the fenfibility being moderated, will be leffened; and the derangement of it by difeafes will be guarded againft.

4th. Every caufe and germ of difeafe in the body muft be removed and banifhed; fuch as accumulations of phlegm, obftructions of the mefentery, and fharp acrid humors; faults which may arife from external hurts and impreffions, too confined bandages, dirtinefs, &c.

5th. The vital power itfelf muft be always fufficiently nourifhed and ftrengthened, particularly by means of frefh air; and the healing power of nature muft, above all things, be fupported from the beginning, becaufe it is the principal means which lie in ourfelves for rendering the caufes of difeafe ineffectual. This

may be done chiefly by not accuſtoming the body at firſt too much to artificial aſſiſtance; otherwiſe Nature will be ſo uſed that ſhe will depend on foreign aid, and at length loſe altogether the power of aſſiſting herſelf.

6th. The whole operation of life and vital conſumption muſt not at firſt be put into too great activity, but be preſerved in a moderate ſtate; by which means its tone may be regulated for the whole life, and alſo for a ſlow and a long life.

The following ſimple means, which, in my opinion, form the principal part of phyſical education, may ſerve for accompliſhing what is contained in the above precepts.

We muſt here, however, diſtinguiſh two periods. The *firſt period* is from birth to the end of the ſecond year; and the chief points to be obſerved are as follows:

I. The nouriſhment muſt be good, but ſuited to that tender age; eaſy of digeſtion,

tion, rather fluid than ſolid; freſh and ſound; nutritive, but not too ſtrong, ſtimulative, or heating.

Nature, here, is our beſt guide; as ſhe has deſtined milk to be the earlieſt food of man. Milk poſſeſſes all the above qualities, in the moſt perfect degree: it is full of nutritive ſubſtance, but mild and nouriſhing, without heating or ſtimulating: it holds a mean rank between animal and vegetable food; unites the advantage of the latter, that of being leſs ſtimulating than fleſh, with all the advantages of fleſh: that is to ſay, its being already aſſimilated to us by preparation in a living animal body, which makes it more eaſily aſſume the character of our ſubſtance: and, in a word, it is altogether ſuited to the nature of an infant.

The body of a child lives quicker than that of a full-grown man, and changes oftener its component parts. Beſides, it requires nouriſhment, not merely for its

 ſupport,

ſupport, but for its continual growth, which is never ſo rapid during the whole courſe of life as the firſt year. It is evident, therefore, that it has occaſion for abundance of concentrated nouriſhment; but as its powers of digeſtion are weak, it is not able to prepare and aſſimilate food that is ſolid or heterogeneous to its nature—ſuch, for example, as vegetables. Its nouriſhment muſt then be fluid, and already animaliſed; that is, be prepared and rendered like its nature in another animal body. It has, however, a great degree of irritability and ſenſibility; ſo that a ſmall irritation, which a grown-up perſon would ſcarcely feel, may in it produce an artificial fever, or the cramp and convulſions. The nouriſhment of a child muſt on this account be mild, and exactly ſuited to its irritability.

I conſider it, therefore, as one of the firſt laws of Nature, and a principal ground for a long and a healthy life, *that*

a child

a child ſhould be nouriſhed, during the whole of the firſt year, by the milk of its mother, or of a ſound nurſe.

From this law of Nature people in modern times make many deviations, which undoubtedly have the moſt prejudicial influence on the duration of life and health, and which I muſt therefore here mention.

Some have attempted to nouriſh and educate children by ſlimy vegetable ſubſtances. Theſe ſometimes and in particular caſes may be uſeful, but, without any other food, are certainly hurtful; for they do not afford ſufficient nouriſhment, and, what is worſe, do not become properly animaliſed, and retain ſtill a part of their ſour vegetable nature in the body of the child. Such food, therefore, produces weak meagre children, continually tormented with acidities at the ſtomach, ſour belching, phlegm, obſtructions in the glands, and the ſcrofula.

Still worſe is the cuſtom of nouriſhing children

children with flour-pap; for this food, befides the difadvantage of its acid nature, as being a vegetable aliment, obftructs the tender lacteal veffels, and thofe of the mefentery; and lays a certain foundation for the fcrofula, and confumption of the lungs.

Others, to avoid thefe evils, and partly through anglomania, make choice of flefh nutriment for their children, and give them wine, beer, and other things of the like kind. This prejudice deferves in particular to be reprobated, becaufe it feems daily to gain more advocates, becaufe it agrees with the exciting method fo much approved at prefent, and becaufe the mifchief it occafions is not always fufficiently attended to by phyficians. People fay, in common, flefh is ftrengthening; and that is precifely what a child requires. But the grounds on which I found a contrary opinion are as follows:—There muft always be a certain relation between the nourifhment and the

body

body to be nouriſhed—between the irritation and the irritability. The greater the irritability, the ſtronger is the effect which may be produced by a ſmall irritation; the ſmaller the former, the effect of the latter will be ſo much weaker. Now, this irritability in human life is always in an inverſe ratio to the age. In the firſt period of life it is ſtrongeſt; and it every year becomes weaker, till it is entirely extinguiſhed by old age. We may therefore ſay that milk, in regard to its irritating and ſtrengthening power, is as exactly proportioned to a child, as fleſh to an adult, or wine to an old man. But if one give fleſh nouriſhment to a child too ſoon, one gives it an irritation like that occaſioned by wine to grown-up perſons, which is much too ſtrong, and not deſtined for it by Nature. The conſequences are, that a kind of artificial fever is produced and kept up in the child, that the circulation of the blood is accelerated, its warmth increaſed, and that a habit with a ten-

a tendency to violent inflammatory diſorders is created. Such a child has a jolly blooming look: but the ſlighteſt cauſe may occaſion a violent commotion in the blood; and when it arrives at the period of teething, or if attacked by the ſmall-pox, or any other kind of fever when the tendency of the blood to the head is ſo ſtrong, one may reſt aſſured that ſome inflammatory diſorder, convulſions, or the apoplexy will enſue. People in general believe that one can die only through weakneſs; but one may die alſo through too much ſtrength and irritation; and this may take place by the injudicious uſe of irritating things. Beſides, by giving ſuch ſtrong nouriſhment to children, one accelerates, from the beginning, their vital operation and conſumption; the whole ſyſtem and organs are put into too great activity; a foundation is originally laid for a more vigorous but a quicker life; and, under the idea of ſtrengthening, one really eſtabliſhes the principal cauſe of a ſhort

ſhort life. One alſo ought not to forget, that, by this early uſe of fleſh nouriſhment, the expanſive proceſs of teething, and afterwards that of manhood, are haſtened too much—a great mean of ſhortening life; and that it has a bad influence on the whole character. All carniverous men and animals are violent, cruel, and paſſionate; while, on the other hand, the uſe of vegetable food inclines men more to mildneſs and humanity. This I have often found confirmed by experience. Children who had uſed fleſh too early, and in too great quantity, became always ſtrong men, but paſſionate, violent, and brutal; and I very much doubt whether ſuch a diſpoſition be fortunate, either for the individuals, or for mankind in general. There are certainly caſes in which the early uſe of fleſh nouriſhment may be uſeful, particularly for weak children, educated without the mother's milk, and who ſuffer from acidities; but it is then to be conſidered as a medicine,

cine, and muſt be regulated and the quantity determined by a phyſician. What I have ſaid reſpecting fleſh is applicable ſtill more to wine, coffee, chocolate, ſpiceries, and the like. It is, therefore, a very important rule, in regard to the phyſical education of children, that a child, during the firſt half-year, ſhould taſte no fleſh, no fleſh ſoups, no beer, and no coffee; but be nouriſhed merely by the milk of its mother. In the ſecond half-year light ſoups may be admitted; but fleſh itſelf ought never to be given till the teeth have appeared, that is, till the end of the ſecond year.

But as many inſuperable circumſtances may occur to prevent a child from being educated in that natural manner in which it ought—ſuch, for example, as the nervous weakneſs of the mother, or her ſickly aſthmatic ſtate, by which the child would loſe more than it could gain in regard to its vital duration—and if a ſound nurſe cannot be procured, the melancholy neceſſity

neceffity then arifes of educating the child artificially; and though this method is always injurious, in fome meafure, to the health as well as duration of life, it may be rendered lefs prejudicial by obferving the following precepts:—Let the child, at leaft where it is poffible, fuck its mother for the firft fortnight, or month. One cannot imagine of how much benefit this is in the firft period. As the beft fubftitute for the mother's milk, fheep or afs's milk may be then given; but always immediately after it has been milked, and while it yet retains its natural warmth. It would be ftill better to let the child fuck the animal. Should this be impracticable, let the child have a mixture of cow's milk and water, always lukewarm; and frefh milk, at leaft, once every day. A remark of fome importance, here, is, that one muft not warm the milk, (otherwife it affumes a certain character of acidity,) but only the water which is added to it. With this artificial nourifhment it

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is neceſſary to give, ſomewhat ſooner, pap made of biſcuit pounded very fine, barley, ſago or ſaloop, boiled with half milk and water; alſo light, but not fat, bouillis and egg-water, that is, the yolk of an egg beat up in a pint of water and mixed with a little ſugar. Potatoes during the two firſt years are prejudicial. However little I conſider them unhealthful in general, they are certainly too hard of digeſtion for ſo tender a ſtomach, as they are of a clammy viſcid nature.

II. Let the child, after the third week, (earlier in ſummer, but later in winter,) enjoy the free air every day, and continue this practice without any interruption on account of the weather.

A perfect ſimilarity prevails here between children and plants. Give the latter the richeſt nouriſhment, warmth, &c. but deprive them of air and light, they will become pale, withered and ſtunted, and at length die. The uſe of

pure free air, and of the vital component parts which it contains, is a nouriſhment as indiſpenſably neceſſary for the ſupport of life as eating and drinking. I have known people who remained weak and pale colored throughout their whole lives, becauſe they were nurtured during their firſt years like plants in a hot-houſe; whereas, on the other hand, the daily uſe of light and free air is the only means to produce a blooming complexion, and to communicate ſtrength and energy ſufficient to laſt one's whole life. This advantage alſo is of great importance, that one thereby in a great meaſure effects a very principal part of pathological hardening; and that a perſon is enabled afterwards to bear, without injury, variations of heat and cold.

It is moſt beneficial when the child enjoys the free air in a place covered with graſs and trees, at a little diſtance from one's habitation. The enjoyment of air in the ſtreets of a city is far leſs wholſome.

III. Let the body of the child be washed daily with fresh cold water: a rule indispensably necessary for cleansing and invigorating the skin; for strengthening the whole nervous system; and for laying the foundation of a sound and a long life.

This practice of washing ought to commence at the birth; but during the first week lukewarm water must be used: cold water ought to be employed afterwards, and it is of great importance that it be fresh drawn from a spring or running stream; for common water contains fixed air which evaporates when it has stood any time, and which communicates to it a very strengthening quality. The child, however, must be washed speedily; and its body ought to be immediately rubbed and dried: for slow bathing cools, but speedy friction warms. Lastly, it should not be washed when it just comes from bed, nor, in general, while it perspires.

IV. Every

IV. Every week it ought to be bathed once or twice in tepid water, warmed to the temperature of new milk, or from 24° to 26° of Reaumur's thermometer.

This excellent practice unites in it ſuch an extraordinary number of virtues, and is at the ſame time ſo ſuited to the age of infancy, that I may call it a real arcanum for bringing to perfection and forming the future man. Cleanſing and invigorating the ſkin, free but not accelerated expanſion of the powers and organs, uniform circulation, harmonic acting in concert of the whole (the foundation of health), ſtrengthening the nervous ſyſtem, moderating the too great irritability of the veſſels and too rapid vital conſumption, purifying the juices, are all its effects; and I can with confidence aſſert, that I am acquainted with no aſſiſtant means of phyſical education which poſſeſs, in ſo high a degree, every requiſite for laying the foundation of a long and a healthful life. The bath muſt not conſiſt

entirely of boiled water, but of water freſh drawn from a well, to which ſome hot water, ſufficient to bring it to a luke-warm temperature, has been added. In ſummer, that water is beſt which has been warmed by the rays of the ſun. The bathing ſhould be continued, at this period of age, a quarter of an hour each time, and afterwards longer. It ought never to be uſed during the firſt hour after eating *.

V. Be careful not to keep a child too warm; that is, avoid warm rooms, warm beds, clothing, &c. Keeping too warm, increaſes irritability in a great degree, and gives occaſion alſo to ſpeedier vital conſumption: it debilitates and relaxes the veſſels, accelerates expanſion, weakens and deadens the ſkin, diſpoſes the body to continual perſpiration, and thus renders it always liable to injury from

* I have treated more fully on the uſe of this practice, among children, in my *Bemerkungen über die Inoculation, und verſchiedene Kinderkrankheiten.*

 cold.

cold. I conſider it as of great importance to accuſtom children to ſleep from their infancy on mattreſſes made of horſe-hair, chaff or moſs. Theſe never acquire too much heat; have more elaſticity, and prevent too great tenderneſs. They oblige the child alſo, as they do not yield to preſſure, to lie ſtraight and extended; by which means, they guard againſt over-growth, and the premature excitement of amorous deſires.

VI. Let the clothing be wide, in no manner confined; and made of ſome ſubſtance not too warm to check perſpiration, ſuch as fur—but of ſtuff that may be often renewed or waſhen. Cotton is the beſt; and, during the ſeverity of winter, light woollen ſtuffs. Avoid all cloſe bandages, ſtiff ſtays, ſmall ſhoes, &c; for theſe may give occaſion to diſeaſes which will afterwards ſhorten life. The head from the fourth to the eighth week muſt be kept quite bare; but this ought to be determined by the ſeaſon of the year.

VII. Pay the utmoſt attention to cleanlineſs; that is, change the ſhirt daily, the clothing every week, the bed-clothes every month, and remove every cauſe of noxious evaporation: in particular, do not ſuffer too many people to be in the nurſery; and allow no clothes to be dried, or any foul linen to remain in it. Cleanlineſs for children is one half of their life: the cleaner they are kept, the more will they proſper and thrive. By cleanlineſs alone, with very moderate nouriſhment, they may in a ſhort time be rendered ſtrong, vigorous, and lively; whereas, without cleanlineſs, even with the richeſt nouriſhment, they will continue ſickly and weak. Want of attention to this precept is the cauſe why ſo many children pine away and are conſumed without any viſible reaſon. Ignorant people imagine that they muſt be bewitched, or under the influence of ſome evil ſpirit; but dirtineſs alone is the demon by which they are tormented, and which in the end will undoubtedly deſtroy them.

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The *second period* is from the end of the ſecond to the twelfth or fourteenth year; and I here recommend the following precepts:

I. Let the rules reſpecting cleanlineſs, waſhing with cold water, bathing, light clothing, living in free air, &c. be obſerved, according to the foregoing directions.

II. The food muſt not be too delicate and artificial, or too coarſe. It will be beſt in this period to allow children a ſufficient mixture of fleſh and vegetables; and to accuſtom them to every thing, but neither to eat too much nor too often. People may reſt aſſured that, if they put in practice all the other rules reſpecting phyſical education, bodily exerciſe, cleanlineſs, &c. neither delicate nor coarſe food will be requiſite to make a child healthy. For the truth of this obſervation we need only look at the children of ruſtics, who, without being fed according to medical precepts, are perfectly ſtrong and ſound. But one, indeed, ought not here, as is

too often the caſe, to give a child ruſtic fare, and at the ſame time to indulge it with a ſoft feather bed, to confine it to the houſe, and accuſtom it to idleneſs; nor to employ the cold bath, while a child, in other reſpects, is enervated by the moſt delicate treatment. I cannot repeat too often, what I have before ſaid, that a principal point of education is to preſerve an uniform tone, and not to unite two oppoſite methods of management. It will be quite ſufficient if a child, during this period, is allowed four meals every day. The only things which it ought not to touch are ſpiceries, coffee, chocolate, ſeaſoning, confections, fat heavy puddings, and cheeſe. For drink, nothing is better than water. In ſuch places only where Nature has denied pure ſpring water, I allow children to be accuſtomed to beer.

III. As bodily exerciſe now becomes an important part of phyſical education, let a child ſpend the greater part of the day in gymnaſtic ſports of every kind, and

and in the open air, where they are always most serviceable. This strengthens in an incredible degree; gives peculiar activity to the body, uniform diffusion to the powers and juices; and guards, in the surest manner, against faults in the growth and formation.

IV. The powers of the mind must not be exerted too early. It is a great prejudice that people imagine they cannot make a child begin to learn too soon. But it is certain that a child may begin too soon, when that period is chosen during which Nature is still employed in forming the bodily powers and organs, and has need of all their strength for that purpose. This period extends to the seventh year; and if a child be obliged, at an earlier age, to apply to learning, and be confined in a sitting posture, its body will be deprived of the noblest part of its powers, which must be now wasted by the business of thinking; and the consequences will be, a checking of the growth, imperfect for-

mation

mation of the limbs, mufcular weaknefs, bad digeftion, corrupt juices, the fcrofula, and a preponderance of the nervous fyftem in the whole machine, which will become burthenfome during life, by nervous affections, the hypochondriafis, and evils of the like kind. Much, however, will here depend on the difference of conftitution, and the greater or lefs vigor of mind; but I earneftly requeft that parents and others will in this refpect purfue a method directly contrary to that ufually followed. If a child fhews an early difpofition for thinking and learning, one ought, inftead of ftraining its powers the more, as is commonly the cafe, to prevent it from application till a later period; for fuch premature ripenefs is generally a difeafe, at any rate an unnatural ftate, which ought rather to be checked than promoted, unlefs one wifhes to breed up a *monfter of erudition*, rather than a found healthful man.

I muft here remark, that a great many of

of the evils which attend too early ſtudy, may not ariſe ſo much from exerting the powers of the mind, as from confinement and ſitting, and from the corrupted air of ſchools in which children are taught. At any rate, the weakening is thus doubled. I am fully perſuaded, that it would be much leſs injurious if children were made to perform their ſchool buſineſs in the open air during the fine ſeaſons; and here, at the ſame time, would they have before them the book of Nature, which, ſuppoſing that the pupils are capable of reading and underſtanding it, is much more fit and proper for their firſt inſtruction than all the books that ever were written or printed.

To this period belongs alſo a very important point in regard to phyſical education, *the guarding againſt onaniſm*; or, rather, *guarding againſt too early a propenſity to amorous enjoyment*. As this evil is one of the moſt certain and moſt terrible of thoſe means which ſhorten and derange life,

life, as has been already ſhewn, I conſider it my duty to ſpeak a little more expreſsly of the methods that ought to be employed to counteract it. I am fully convinced, that this vice is exceedingly common, and highly deſtructive to human nature; but that where it has once become habitual, it is very difficult to be eradicated. People alſo ought not to imagine that the principal helps againſt it are to be found in noſtrums and ſpecifics, which generally are employed too late; but that the grand object is to prevent onaniſm altogether, and that the whole art and ſecret conſiſts conſequently in guarding againſt *too early an expanſion and excitement of the propenſity to amorous indulgence.* This is properly the diſeaſe with which mankind are afflicted at preſent, and of which onaniſm is now the conſequence; for this diſeaſe may exiſt in the ſeventh or eighth year, before onaniſm takes place. But it is neceſſary to purſue early meaſures for preventing the

latter,

latter, and to attend, in this respect, not to single points, but to the whole education in general.

According to my observations and experience, the following, when properly employed, are the most certain means to subdue this pestilence of youth.

1. One must beware, from the beginning, not to give a child strong, stimulating, nutritive food. Many, indeed, when they indulge their children very early with flesh, wine, coffee, and the like, do not reflect that they are thereby laying a foundation for a tendency to this vice. These stimulants, given so soon, hasten, as I have already shewn, expansion of the organs. It is, in particular, hurtful to allow children, at night, meat, hard eggs, spiceries, or puffing things, such as potatoes, which, in this way, have a very powerful effect.

2. Washing with cold water daily, as already mentioned; the use of free air, and light clothing, particularly of the private

vate parts, are alſo of importance. Cloſe warm breeches often tend to promote this premature expanſion; and it is therefore a good rule to give children, during their firſt years, a looſe under-frock, and not to ſuffer them to wear breeches till a more advanced period.

3. Do not permit them to ſleep on feather-beds, but on mattreſſes; do not let them retire to reſt till they are heartily tired with exerciſe, and cauſe them to get up early in the morning. Lolling in bed, in the morning, between ſleeping and waking, particularly under warm bed-clothes, is one of the greateſt cauſes of onaniſm, and ought never to be ſuffered.

4. Give them ſufficient exerciſe daily, ſo that their natural ſtock of vigor may, by muſcular motion, be employed and exhauſted: for, when a poor child is kept ſitting the whole day, and its body retained in a paſſive ſtate, is it to be wondered at if its vigor, which will and muſt have vent, ſhould aſſume that unnatural direction?

direction? Let a child or a youth daily exercise his vigor in the open air, by running, jumping, &c; and I engage he will never fall into the deteftable vice of onanifm. It is peculiar to a fedentary education, in fchools and other feminaries, where exercife is confined to half-hours.

5. Let not the powers of thought and fenfation be ftrained too early. The more thefe organs are refined and brought to perfection, the more tendency will the body have to onanifm.

6. One fhould be particularly cautious in regard to all difcourfe, writings, or circumftances which might tend to excite fuch ideas, or to turn the attention of children to certain parts. It will be highly neceffary to divert them from thefe by every mean poffible; but not in a manner recommended by fome, that is, making thefe parts interefting to them by explaining their nature and ufe. The more their attention is drawn to thefe, the fooner without doubt can they be acted

 upon

upon by any ſtimulus; for internal attention to any point (internal contact) is as good a ſtimulus as external contact; and I agree, therefore, with the ancients, that the organs of generation ſhould not be mentioned to a child before the age of fourteen. Of that for which Nature has not as yet organs they ought to have no idea, otherwiſe the idea may call forth the organs before the proper time.

One, alſo, muſt keep at a diſtance plays, romances and poems, which may have a tendency to excite ſuch ſenſations. Nothing ſhould be allowed that may inflame the imagination of children, or lead to laſcivious ideas. Great miſchief has been occaſioned to many by reading ſome of the old poets, or the ſtudy of mythology; and, for this reaſon, it would be much better to begin a child's education with the ſtudy of Nature, botany, zoology, economy, &c. Theſe ſubjects can awaken no unnatural propenſity, but preſerve the thoughts pure, and therefore will act

rather

rather as an antidote to any thing of the kind.

7. One ought to watch, with the utmoſt care, over nurſery-maids, domeſtics and others, that they may not ignorantly foſter the firſt germ of this diſſipation, as is too often the caſe. I have met with ſome inſtances, where children became onaniſts merely through the nurſery-maids, who, when they cried and would not ſleep, knew no other method of ſoothing them than to ſport with their privities. The ſleeping together of two ought alſo never to be ſuffered.

8. If, however, notwithſtanding all theſe precautions, this unhappy propenſity ſhould be excited, one ought, above all things, to enquire whether it may not be owing rather to diſeaſe than to viciouſneſs, to which moſt of thoſe entruſted with the care of education pay too little attention. All diſeaſes, in particular, which occaſion great irritability in the abdomen, if they are combined with an

extraordinary ſenſibility of the nerves, may give riſe to this vice, as I know from experience. Of this nature are worms, the ſcrofula, and plethora of the lower belly, whether it be the conſequences of too heating food, or of too much ſitting. When there is any ſuſpicion, therefore, of this being the caſe, one muſt always begin by removing the bodily cauſe. Let the unnatural ſenſibility of the nerves be ſubdued by ſtrengthening medicines, and, without any other helps, one may cure this propenſity to onaniſm, or too great irritability of the organs of generation.

CHAP. III.

Active and laborious youth.

IT appears that all thoſe who attained to a great age were men who in their youth had been much accuſtomed to labor and fatigue; ſuch as, ſoldi rs, ſailors, and day-laborers. I ſhall here mention only *Mittelſtädt*, that veteran of 112, who in his fifteenth year was a ſervant, and in his eighteenth a ſoldier; and who was preſent in all the Pruſſian wars, from the commencement of the monarchy.

A youth ſpent in that manner, becomes the foundation of a long and a ſtrong life, two ways: partly by giving the body that degree of ſtrength and ſolidity which is neceſſary for its duration; and partly by making that poſſible which principally

contributes to promote happineſs and longevity—advancement to a better and more agreeable ſituation. He who in his youth has every convenience and enjoyment in abundance hath nothing more to expect; he is deprived of the beſt means of exciting and preſerving the vital power—hope, and the proſpect of a better condition. If he is condemned then with increaſing years to poverty and difficulties, he finds himſelf doubly oppreſſed; and the duration of his life muſt be neceſſarily ſhortened. But in the tranſition from a ſtate of miſery to one more fortunate, lies a continual ſource of new joy, new vigor, and new life. In the like manner, the paſſage, with increaſing years, from a raw, cold climate, to one more mild, contributes much to prolong life; as alſo the change from a ſtate of labor to one more convenient and agreeable.

CHAP.

CHAP. IV.

Abſtinence from the enjoyment of phyſical love in youth and without marriage.

HE who in Pleaſure's downy arms
 Ne'er loſt his health or youthful charms,
A hero lives; and juſtly can
 Exclaim, "In me behold a man!"

He proſpers like the ſlender reed,
 Whoſe top waves gently o'er the mead;
And moves—ſuch bleſſings virtue follow—
 In health and beauty an Apollo.

That power divine, which him inſpires,
 His breaſt with nobleſt paſſions fires;
Theſe heavenwards ſoar with eagle-flight,
 And ſpurn the cold, dark realms of night.

So full of majeſty—a god—
 Shall earth alone be his abode?
With dignity he ſteps—he ſtands—
 And nothing fears; for he commands.

Like drops drawn from the cryſtal ſtream,
His eyes with pearly brilliance beam;
With bluſhing ſigns of health o'erſpread,
His cheeks ſurpaſs the morning's red.

The faireſt of the female train
For him ſhall bloom, nor bloom in vain:
O happy ſhe, whoſe lips he preſſes!
O happy ſhe, whom he careſſes!

BÜRGER.

THERE was a time when the German youth never thought of intercourſe with the other ſex till their twenty-fourth or twenty-fifth year; and yet nothing was then known of the pernicious conſequences of this chaſtity—nothing of diſeaſes ariſing from continence, nor of many other imaginary evils of which people now dream: but theſe youth, increaſing in ſtrength as well as growth, became men who, by their ſize, excited the aſtoniſhment even of the Romans.

People now leave off at the period when theſe began. They imagine they can never ſoon enough get rid of their chaſtity;

chaſtity; the moſt ridiculous notions are formed, of the injury that may be occaſioned by continence; and young perſons, long before their bodies are completely finiſhed, begin to waſte thoſe powers which are deſtined for giving life to others. The conſequences are evident. Theſe men remain incomplete, half-formed beings; and at the period when our anceſtors began to employ thoſe powers, they, in them, are generally exhauſted: they feel nothing but dejection and miſery in enjoyment; and a ſtimulus of the utmoſt importance for ſeaſoning life is to them for ever loſt.

It is incredible how far prejudice in this reſpect may be carried, eſpecially when it flatters our inclination. I actually knew a man who ſeriouſly believed that there was no poiſon more prejudicial to the human body than the generative juices; and the conſequence was, that he thought the beſt thing he could do was to get rid of them as ſoon as poſſible. By

these means he was an old man in his twentieth year, and in his twenty-fifth died of old age.

The present age has fallen so much into the taste of the times of chivalry, that all romances must now assume that form in order to please; and one, indeed, cannot help admiring the great, noble, and resolute manner of thinking and acting of these old Germans. It appears that the more sensible we are how far we have degenerated from them, the more we are excited by their example, and the more we are inflamed with a desire to imitate their conduct. But what a happiness would it be if we did not think merely of the object, but of the means to obtain it! That by which these people acquired so much courage, so great powers both of body and mind—their bold, firm, and resolute character, which made them *real men* in the utmost sense of the word, was, in particular, their strict continence, and sparing their physical manhood. The youth

youth of theſe men was deſtined to great exploits and undertakings, not to voluptuouſneſs and debauchery; the phyſical propenſity to amorous intercourſe with the other ſex did not among them ſink into brutal enjoyment, but was exalted to a moral incitement to noble and heroic actions. Each bore in his heart the image of his beloved object, whether real or imaginary; and this romantic love, this indiſſoluble attachment, was the ſhield of his continence and virtue, ſtrengthened the powers of his body, and communicated to his mind courage and unalterable reſolution, by continually directing its attention to his fair one ſmiling to him at a diſtance, and whoſe favor could be gained only by glorious achievements. However romantic theſe notions may be, I find, on cloſer examination, great wiſdom in this uſe of phyſical love, one of the ſtrongeſt motives by which human nature is actuated. How widely different has the caſe become among us?

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This propenſity, which by prudent management may be made the germ of the moſt exalted virtue, of the greateſt heroiſm, has degenerated into whining ſenſibility, or mere brutal gratification, which people enjoy prematurely, and even to ſatiety; the paſſion of love, which in thoſe periods was a ſecurity againſt diſſipation, is at preſent the ſource of the greateſt; the virtue of chaſtity, the principal foundation without doubt of moral firmneſs and manlineſs of character, has become a ſubject of ridicule, and is decried as old-faſhioned pedantry; and what ought to be the laſt and ſweeteſt reward of toil, labor, and danger, has become a flower which every ſtripling crops by the way. Why does Nature excite in our boſoms this ſighing after union, this all-powerful, irreſiſtible propenſity to love? Not, truly, to afford ſubjects for romance, or to make a figure in the ecſtatic raptures of poetry; but that it may ſerve as an indiſſoluble band to unite two hearts; to

to lay the grounds for a happy generation; and that, by this magic tie, our exiſtençe may be connected with the firſt and the moſt ſacred of all duties—How fortunate would it be were we here to imitate the ancient method, and never to pull the fruit till we had planted!

At preſent, we hear a great deal of ſtrength and ſtrong men: but I will believe nothing of it as long as I ſee that they have not ſtrength enough to ſubdue their paſſions, and to be continent; for, that is the only cauſe of triumph, as well as the only ſign of mental ſtrength; and chaſtity is the ſchool in which youth ought to be exerciſed, and to form themſelves for becoming ſtrong men.

We in general find, in the old world, that all thoſe from whom any thing great or glorious was expected, were obliged to reſtrain phyſical love. So much were people then convinced that Venus requires the whole powers of man, and that

that thoſe given to diſſipation of this kind could never perform any thing extraordinary.

On this I found one of the moſt important rules reſpecting longevity: *Let every one who has a regard for the happineſs and duration of his life, avoid illicit commerce with the other ſex, and forbear this enjoyment till he is married.* My reaſons are as follows;

1ſt. Illicit commerce, on account of the variety with which it is connected, leads always into new temptation, and tends to promote immoderation; which marriage, on the other hand, prevents.

2d. It leads to too early enjoyment of phyſical love, one of the greateſt means of ſhortening life; whereas enjoyment in the married ſtate is not poſſible till we are ſufficiently prepared for it both in a moral and a phyſical point of view.

3d. Illicit commerce with women expoſes us to the unavoidable danger of

venereal poiſon; for all precaution and all preſervatives, as I ſhall hereafter ſhew, are not ſufficient to defend us from it.

4th. By this commerce we loſe all inclination for wedded love, as well as the power of enjoying it; and conſequently are deprived of one of the moſt eſſential means for ſupporting life.

But many may here aſk, How is it poſſible, with a ſound, well-nouriſhed body, and with ſuch modes of thinking and acting as are prevalent among us, to obſerve continence till the twenty-fourth or twenty-fifth year—in a word, till the period of marriage*? That it is poſſible, I know

* Many ſtill dream of the bad phyſical effects that attend continence; but it cannot be remarked too often, that the generative juices are not deſtined merely for evacuation, but principally for being again imbibed into the blood, and for ſtrengthening us. And I cannot help here taking notice of a regulation, which in this reſpect ſecures our moral freedom, and is therefore an excluſive peculiarity of man. I allude to that natural periodical evacuation

I know from experience; and I could mention many brave men who brought as a dowery to their youthful brides the firſt fruits of their manhood. But this requires great reſolution, a firmneſs of character, a certain ſtate and direction of

tion of theſe juices which are deſigned partly for producing, and partly for nouriſhing the fruit: the *pollutiones nocturnæ* among men, and the *menſtrua* among women. Man ſhould be always ready for propagating, but not conſtrained to it like the brutes; and this is prevented by theſe natural evacuations. They reſcue man from the ſlavery of being ſubject to mere brutal impulſe, enable him to regulate his deſires according to reflection and moral laws, and thus protect his moral freedom. Both ſexes are by theſe means freed from the phyſical miſchiefs which might enſue from not gratifying this deſire; there exiſts no longer any inſuperable and merely animal neceſſity for indulging it; and man is at full liberty, unleſs he deprives himſelf of this advantage by ſtimulating the propenſity too much, of gratifying it or not, even when a higher moral object may require it. A new and ſtrong proof that the phyſical nature of man was ſuited to his higher moral perfection, and that this object is one of his moſt inſeparable and eſſential properties!

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the mind and habits which indeed are not very common. Let me here, therefore, be permitted to lay before the younger part of my fellow-citizens, a few of thofe means which I know from practice to be the beft for promoting continence, for guarding againft illicit indulgence, and preferving the powers and chaftity of the body during the dangerous period of youth.

1ft. Live moderately, and avoid the ufe of ftimulating nutritive things, which tend to increafe the blood; fuch as, a great deal of flefh, eggs, chocolate, wine, and fpiceries.

2d. Expofe yourfelf daily to ftrong bodily exercife, till you are tired; until the powers and juices be exhaufted, and the ftimulus be removed from the organs of generation. To be brief, in thefe two words, *faft* and *labor*, lies the great talifman againft the temptations of this demon.

3d. Employ the mind, particularly, with

with ſerious abſtract ſubjects, which may divert it from ſenſuality.

4th. Guard againſt every thing that may inflame the imagination, and give it a tendency to voluptuouſneſs; ſuch as, lewd converſation, the reading of looſe and laſcivious poetry or romances, and all intercourſe with ſeducing females, many kinds of dances, &c.

5th. Let the mind be always ſtrongly impreſſed with the dangerous conſequences of this diſſipation. I ſhall here firſt ſpeak of the moral.—What man of any feeling or reflection can ſuffer the idea of being the ſeducer of early innocence, or of conjugal affection? Would he not, during his whole life, be tormented, in the firſt caſe, with the painful reproach of having cropped the flower in the bud, and of having expoſed to phyſical as well as moral unhappineſs an innocent being, whoſe future errors, debauchery and abandoned worthleſſneſs, muſt

muſt be aſcribed to him as the firſt cauſe; and, in the ſecond, to that of having diſturbed and poiſoned the matrimonial and domeſtic felicity of a whole family—a crime which, according to its moral tendency, is more deteſtable than robbery or murder? For what is every other property in compariſon of wedded love, the property of the heart? and what is robbery of goods when compared to robbery of virtue, of moral happineſs? The only courſe remaining then is to give one's ſelf up to hireling proſtitutes devoted to illicit pleaſure; but what degradation of character, what loſs of every honorable ſentiment, is connected with ſuch conduct! It is proved, beyond all doubt, that nothing renders the mind ſo incapable of noble and exalted ſenſations, deſtroys ſo much all its firmneſs and powers, and relaxes the whole being, as this diſſipation.—If we now conſider the phyſical conſequences of illicit amorous enjoyment, we ſhall find them to be no leſs

 melan-

melancholy; for, no one is ever ſecure againſt venereal infection. No condition, no age, no ſtate of apparent health, is able to protect us. But too little is this point attended to at preſent, ſince the greater frequency of the evil and the authority of ignorant phyſicians have made the venereal poiſon a matter of as much indifference as a cough or a cold.

But we ſhall here conſider, in its real form, what it is to be poiſoned in this manner; and I hope every prudent and judicious perſon will allow that it is one of the greateſt misfortunes which can happen to mankind. For, in the firſt place, the effects of this poiſon in the body are always very weakening and powerful, often dreadfully deſtructive; ſo that mortal conſequences enſue, or the palate and bones of the noſe are loſt; and a man thus carries his infamy always about with him as a public ſpectacle. Beſides, the medical art has not yet eſtabliſhed any ſigns fully concluſive whether the

the diſeaſe be totally removed, and the venereal poiſon completely ſubdued. The greateſt phyſicians all agree that the poiſon can actually ſo conceal and modify itſelf, for a certain period, that a perſon may believe he is radically cured without being ſo in reality. Hence ariſe two bad conſequences: firſt, that a man may retain in the body ſomething venereal, which under different forms will be a burthen to him while he lives, and which may bring on the utmoſt debility; or, what is equally bad, he may always imagine that the infection is ſtill lurking within him, aſcribe to it every trifling indiſpoſition, and with this dreadful uncertainty be continually tormented. Of the latter caſe I have ſeen the moſt melancholy inſtances. Should any thing of the hypocondriac affection be combined with ſuch an idea, it becomes a peſtilence of the mind, and deprives the wretched ſufferer of all reſt, happineſs, and reſolution. To this may be added, that, in the

cure even of this diſorder, there is ſome-thing horrid. The only antidote of the venereal poiſon is *quickſilver*, a poiſon of another kind; and a thorough cure by quickſilver, which is neceſſary in a high ſtage of the diſeaſe, is nothing elſe than an artificial *poiſoning with quickſilver* in order to remove the venereal poiſon. But, inſtead of venereal evils, the conſe-quences of the mercurial poiſon often re-main in the body. The hair drops off; the teeth are deſtroyed; the nerves be-come weak; the lungs are affected; and other miſchiefs of the like kind enſue. But a conſequence, which certainly muſt have great weight with a man of feeling, is, that every one who catches venereal infection, receives the poiſon not merely for himſelf, but reproduces it; and thus becomes a ſource of poiſon to others, and even to mankind. He makes his body a reſervoir—a nurſery for this loathſome diſeaſe; and by theſe means is a preſerver of it for the whole world, ſince it is proved

proved that the poiſon is again generated only in men, and that it might be extirpated if men would give over to reproduce it.

6th. I ſhall mention one motive more, which with people of good hearts muſt have a very powerful effect. Let a man think of his future ſpouſe, and the duty to which ſhe is entitled. If one is already acquainted with her, ſo much the better: but, even without knowing her, the idea of that perſon to whom we intend ſome day to give our hand, from whom we expect fidelity, virtue and the cloſeſt attachment, muſt be a ſtrong inducement to continence and purity. If we wiſh to be completely happy, we muſt, even if ſhe be ſtill ideal, have a reſpect for her by anticipation, be true and faithful to her, and render ourſelves worthy of her. How can a man who has plunged into every diſſipation, and thereby deſtroyed his conſtitution, ever expect a virtuous and reſpectable partner? How can he love

her with a pure and an honeſt heart, if he has not, from his earlieſt years, accuſtomed himſelf to ſuch refined and exalted ſenſations, but degraded them to brutal enjoyment?

7th. One rule of great importance I muſt not here omit:—Guard, with the utmoſt care, againſt the firſt tranſgreſſion of this kind. No tranſgreſſion is attended with ſuch certain conſequences as this. He who has never proceeded to the laſt degree of familiarity with the other ſex, has, in that reſerve, the greateſt ſhield of his virtue. Baſhfulneſs, timidity, and a certain internal ſenſe of impropriety, which form the character of modeſty, will make him ſtart back with horror even from the ſtrongeſt temptation. But, by one falſe ſtep, all theſe are irrecoverably loſt. Beſides, the firſt enjoyment often excites an appetite for more, as every ſenſe by culture is brought to perfection. In this reſpect not only phyſical but alſo moral chaſtity is ſomething real;

real; a ſacred benefit which both ſexes ought carefully to preſerve. But it is equally certain, that one deviation is ſufficient to rob us of it phyſically as well as morally; and he who has erred once, will certainly err often.

In ſhort, to return to our principal poſition:

> Multa tulit, fecitque puer, ſudavit et alſit,
> Abſtinuit venere et vino.

In theſe words lies the eſſential art of creating for one's ſelf, in youth, ſtrength and duration of life. Labor, exertion, and guarding againſt phyſical love and wine, are indeed the principal points.

To what has been here ſaid nothing is neceſſary to be added, but a few obſervations.—Fortunate, therefore, is he who poſſeſſes the art of ſaving theſe powers. In this he poſſeſſes not only the ſecret of giving to his own life more duration and energy, but alſo, when the proper period arrives of communicating life to other beings, the ſatisfaction of completely en-

joying wedded love, and of feeing his preferved powers and health doubled in a happy offspring; while, on the other hand, the enervated rake, befides fhortening his own life, is expofed to the bitter affliction of beholding his infamy always reproduced in his miferable children. Such is the abundant reward that awaits thofe who have refolution enough to be continent for a few years. I am acquainted with few virtues that are rewarded, even here on earth, in fo rich and fo diftinguifhed a manner.

Befides, it has ftill this advantage, that, while it prepares the way for a happy married ftate, it contributes, in a confiderable degree, to fupport and prolong life.

CHAP.

CHAP. V.

Happy married ſtate.

IT is one of the falſeſt and moſt pernicious of prejudices, that marriage is an invention merely political and conventional. It is much rather one of the moſt eſſential parts of the deſtination of man, both for the individual and the whole; and an eſtabliſhment abſolutely neceſſary for the education of mankind. By marriage I underſtand, a firm ſacred union of two perſons of different ſexes, for the purpoſe of mutual ſupport, and for producing and educating children. And, in this intimate union, founded on ſo important an object, lies, in my opinion, the principal grounds of domeſtic as well as public felicity; ſince, in the firſt place, it is indiſpen-

dispensibly requisite for the moral perfection of mankind. By this close connection of two beings, this association of one's interest with that of another, is selfishness, the most dangerous enemy of all virtue, best subdued; and man always more inclined to humanity and compassion for his fellow-creatures, and still brought nearer to his true state of moral exaltation. His wife and his children form an indissoluble bond, which unites him to the rest of mankind, and to the good of the whole: his heart is always warmed by the sweet sensation of matrimonial and parental tenderness, and defended from that deadening coldness which so easily overcomes the man who leads a solitary life; and the endearing cares of a father impose on him duties which accustom him to order, industry, and habits of prudence. His passion for the sex is thereby ennobled, and, from a mere animal instinct, converted into one of the highest moral motives of action; and violent passions,

ſions, ill-humor, and bad cuſtoms, are thus best eradicated. Hence ariſes a very fortunate influence over the whole and the general good; ſo that I can, with perfect confidence, affirm, that happy marriages are the moſt important ſupports of a ſtate, and of public peace and felicity. A bachelor always remains a mere egotiſt; reſtleſs and unſteady, a prey to ſelfiſh humors and paſſions; leſs intereſted for mankind, for his country and the ſtate, than for himſelf. He is overcome by a falſe ſentiment of liberty, which prevents him from entering into wedlock; and this ſentiment is ſtill nouriſhed and ſtrengthened by the condition in which he lives. What can tend more to produce a fondneſs for change, ſedition, and revolutions, than an increaſe of unmarried citizens?—How different is the caſe with the married! That dependance on the other half, neceſſary in marriage, accuſtoms one continually to a dependance on the laws; regard for one's wife and children obliges one to be regular

regular and induſtrious: by his children, a man is attached cloſely to the ſtate; its intereſt and proſperity by theſe means become his own; or, as Bacon expreſſes it, he who is married, and has children, has given pledges to the ſtate; he is a bondſman, a true citizen, and a real patriot. But, what is ſtill more, a foundation is here laid, not only for the happineſs of the preſent generation, but for that of the future alſo; as it is the matrimonial union only that produces to the ſtate good moral citizens, accuſtomed from their youth to regularity and an obſervance of their duty. One muſt not imagine that the ſtate itſelf can ſupply this formation of the manners, this education which all-wiſe Nature hath connected with the hearts of a father and a mother. The ſtate, alas, is a bad mother!—I have already ſhewn the melancholy conſequences, conſidered phyſically, of illicit intercourſe between the ſexes—of propagating promiſcuouſly after the manner of

the brute creation, and of leaving the off-ſpring to be educated at the public ex-pence in orphan-houſes; and, in a moral point of view, the conſequences are equally deſtructive. It is an indiſputed truth, that the more natural children a ſtate has, the more it has within it the germ of corrup-tion—the ſeeds of future diſturbance and revolutions. And yet there are ſtateſ-men, who, ſeduced by falſe political ſpe-culations, can believe that matrimonial union may be hurtful to a ſtate; that libertiniſm makes the moſt loyal ſubjects, good citizens; and other ridiculous no-tions of the like kind. O ye rulers of the world! if you wiſh to enſure the tran-quillity of your ſtates—if you are deſi-rous to diſpenſe real happineſs both to individuals and the whole—promote, ho-nor, and ſupport marriage; conſider every union of this kind as a nurſery for good citizens, and every family where do-meſtic felicity prevails as a pledge of pub-lic

lic peace, and of the ſecurity of your thrones!

Pardon this digreſſion of my heart, which can omit no opportunity to ſhew the excellent and divine advantages of an inſtitution, which is evidently founded in the moral and phyſical nature of man, and with which many at preſent ſeem to be ſo little acquainted, and of which they judge ſo falſely.—I ſhall now return to my principal object, to point out the beneficial influence which marriage has on the phyſical good of mankind. With the utmoſt propriety may it be claſſed among thoſe means which tend to prolong life; and my reaſons are as follows:

1ſt. Marriage is the only means to regulate love, and to direct it to its proper object. It equally prevents debilitating diſſipation, and cold and unnatural indifference. However much I have recommended continence in youth, convinced that it is indiſpenſibly neceſſary to promote

mote long life, I am convinced alſo that there are certain years of manhood when it is as prejudicial to ſuppreſs by violence the propenſity of nature to phyſical love, as it is to gratify it before the proper period. The generative juices in part, at leaſt in regard to the coarſer particles, are an excretion; and what is of the utmoſt importance, by the uſe of the organs being totally interrupted, leſs of theſe juices is ſecreted and prepared; conſequently leſs of them can be again abſorbed into the blood, and by theſe means we in the end ſuſtain a loſs. And, beſides, it is required by the general law of harmony. No power in us muſt remain totally unexpanded; each muſt be exerciſed in moderation.—*Coitus modicus excitat, nimius debilitat.*

2d. It moderates and regulates enjoyment. That *ſameneſs* which deters the libertine from marriage, is highly healthful and neceſſary; for it prevents that irritation occaſioned by a continual change

of objects, and which is therefore more weakening. It is like plain ſimple food, in regard of that which is compounded and luxurious: the former only promotes moderation and longevity.

3d. We are told by experience, that *all thoſe who attained to a very remarkable age were married.*

4th. The married ſtate promotes *domeſtic* joy, which is the pureſt, the moſt uniform, and the leaſt waſting of all. It is undoubtedly that which is beſt ſuited to phyſical as well as moral health, and which can, with the greateſt certainty, preſerve the mind in that happy mean ſtate moſt favorable to longevity. It tends to moderate overſtrained hope and enthuſiaſtic ſpeculation, as well as exceſſive care. Every thing, by the participation of another being, by the intimate connection of our exiſtence with that of another, is rendered milder and more ſupportable. To this may be added, that tender charge, that heaven on earth, ſecured

cured by nothing ſo much as wedded love, which lies in the poſſeſſion of healthful and well-educated children; that actual renovation, reſerved for us by their company, of which Cornaro, at the age of eighty, has given ſo affecting a picture.

We go out of the world by the ſame changes almoſt as thoſe by which we enter it. We begin as children—as children we leave off. We return, at laſt, to the ſame weak and helpleſs condition as our firſt. We muſt have people to lift us, to carry us, to provide us nouriſhment, and even to feed us. We again have need of parents—And how wiſe the eſtabliſhment!—We find them again in our children, who now take delight in repaying a part of that kindneſs which we ſhewed to them. Children now ſtep, as it were, into the place of parents, while our weakneſs tranſpoſes us into the place of children. The venerable oak, on the other hand, does not enjoy the benefit of ſuch a wiſe regulation. The old decayed

trunk ſtands alone and forgotten, and in vain endeavors to procure, from foreign aid, that ſupport and aſſiſtance which can be the work only of natural affection and the bonds of nature.

Do what thou can'ſt, exert thy utmoſt power;
Yet ſtill alone thou'lt ſtand till thy laſt hour,
When Nature's hand, almighty and divine,
To the grand whole thy lifeleſs maſs ſhall join.

SCHILLER.

CHAP.

CHAP. VI.

Sleep.

I HAVE already ſhewn that ſleep is one of the wiſeſt regulations of Nature, to check and moderate, at fixed periods, the inceſſant and impetuous ſtream of vital conſumption. It forms, as it were, ſtations for our phyſical and moral exiſtence; and we thereby obtain the happineſs of being daily re-born, and of paſſing every morning, through a ſtate of annihilation, into a new and refreſhed life. Without this continual change, this inceſſant renovation, how wretched and inſipid would not life be! and how depreſſed our mental as well as phyſical ſenſation! The greateſt philoſopher of the preſent age ſays, therefore, with juſtice: *Take from*

man hope and ſleep, and he will be the moſt wretched being on earth.

How unwiſely then do thoſe act who imagine that by taking as little ſleep as poſſible they prolong their exiſtence! They will obtain their end neither in *intenſive* nor *extenſive* life. They will, indeed, ſpend more hours with their eyes open; but they will never enjoy life in the proper ſenſe of the word, nor that freſhneſs and energy of mind which are the certain conſequences of ſound and ſufficient ſleep, and which ſtamp a like character on all our undertakings and actions.

But ſufficient ſleep is neceſſary, not only for intenſive life, but alſo for extenſive, in regard to its ſupport and duration. Nothing accelerates conſumption ſo much; nothing waſtes us ſo much before the time, and renders us old, as a want of it. The phyſical effects of ſleep are, that it retards all the vital movements, collects the vital power, and reſtores what has

been

been loſt in the courſe of the day; and that it ſeparates from us what is uſeleſs and pernicious. It is, as it were, a daily criſis, during which all ſecretions are performed in the greateſt tranquillity, and with the utmoſt perfection.

Continued watching unites all the properties deſtructive of life; inceſſant waſting of the vital power and of the organs, acceleration of conſumption, and prevention of reſtoration.

We muſt not, however, on this account, believe that too long continued ſleep is one of the beſt means for preſerving life. Long ſleep accumulates too great an abundance of pernicious juices, makes the organs too flaccid and unfit for uſe, and in this manner can ſhorten life alſo.

In a word, no one ſhould ſleep leſs than ſix, nor more than eight hours. This may be eſtabliſhed as a general rule.

To thoſe who wiſh to enjoy ſound peaceful repoſe, and to obtain the whole

end of ſleep, I recommend the following obſervations:

1ſt. The place where one ſleeps muſt be quiet and obſcure. The leſs our ſenſes are acted upon by external impreſſions, the more perfectly can the ſoul reſt.—One may from this ſee how improper the cuſtom is, of having a candle burning in one's bed-chamber during the night.

2d. People ought always to reflect, that their bed-chamber is a place in which they paſs a great part of their lives; at leaſt they do not remain in any place ſo long in the ſame ſituation. It is of the utmoſt importance, therefore, that this place ſhould contain pure ſound air. A ſleeping apartment muſt, conſequently, be roomy and high; neither inhabited, nor heated, during the day; and the windows ought always to be kept open, except in the night-time.

3d. One ſhould eat little and only cold food for ſupper, and always ſome hours before going to bed.

4th.

4th. When a-bed, one ſhould lie not in a forced or conſtrained poſture, but almoſt horizontal; the head excepted, which ought to be a little raiſed. Nothing is more prejudicial than to lie in bed half-ſitting. The body then forms an angle; circulation in the belly is checked, and the ſpine is always very much compreſſed. By this cuſtom, one of the principal ends of ſleep, a free and uninterrupted circulation of the blood, is defeated; and, in infancy and youth, deformity and crookedneſs are often its conſequences.

5th. All the cares and burthen of the day muſt be laid aſide with one's clothes; none of them muſt be carried to bed with us; and, in this reſpect, one by cuſtom may obtain very great power over the thoughts. I am acquainted with no practice more deſtructive than that of ſtudying in bed, and of reading till one falls aſleep. By theſe means the ſoul is put into too great activity, at a period when every thing conſpires to allow it perfect

 reſt;

reſt; and it is natural that the ideas, thus excited, ſhould wander and float through the brain during the whole night. It is not enough to ſleep phyſically; man muſt ſleep alſo ſpiritually. Such a diſturbed ſleep is as inſufficient as its oppoſite, that is, when our ſpiritual part ſleeps, but not our corporeal: ſuch, for example, as ſleep in a jolting carriage on a journey.

6th. One circumſtance, in particular, I muſt not here omit to mention. Many believe that it is entirely the ſame if one ſleeps theſe ſeven hours either in the day or the night-time. People give themſelves up, therefore, at night, as long as they think proper, either to ſtudy or pleaſure; and imagine that they make every thing even when they ſleep in the forenoon thoſe hours which they ſat up after midnight. But I muſt requeſt every one, who regards his health, to beware of ſo ſeducing an error. It is certainly not the ſame, whether one ſleeps ſeven hours by day or by night; and two hours ſound

ſleep before midnight are of more benefit to the body than four hours in the day. My reaſons are as follows:

That period of twenty-four hours, formed by the regular revolution of our earth, in which all its inhabitants partake, is particularly diſtinguiſhed in the phyſical œconomy of man. This regular period is apparent in all diſeaſes; and all the other ſmall periods, ſo wonderful in our phyſical hiſtory, are by it in reality determined. It is, as it were, the unity of our natural chronology.—Now, it is obſerved, that the more the end of theſe periods coincides with the concluſion of the day, the more is the pulſation accelerated; and a feveriſh ſtate is produced, or the ſo called evening fever, to which every man is ſubject. The acceſſion of new chyle to the blood, may, in all probability, contribute ſomething towards this fever, though it is not the only cauſe; for we find it in ſick people who have neither eat nor drunk. It is more owing, without doubt, to the abſence

abſence of the ſun, and to that revolution in the atmoſphere which is connected with it. This evening fever is the reaſon why nervous people find themſelves more fit for labor at night than during the day. To become active, they muſt firſt have an artificial ſtimulus; and the evening fever ſupplies the place of wine. But, one may eaſily perceive that this is an unnatural ſtate; and the conſequences are the ſame as thoſe of every ſimple fever: laſſitude, ſleep, and a criſis, by the perſpiration which takes place during that ſleep. It may with propriety therefore be ſaid, that all men every night have a critical perſpiration, more perceptible in ſome, and leſs ſo in others, by which whatever uſeleſs or pernicious particles have been imbibed by our bodies, or created in them, during the day, are ſecreted and removed. This daily criſis, neceſſary to every man, is particularly requiſite for his ſupport; and the proper period of it is when the fever has attained to its

higheſt

higheſt degree, that is, the period when the ſun is in the nadir, conſequently midnight. What do thoſe, then, who diſobey this voice of Nature which calls for reſt at the above period, and who employ this fever, which ſhould be the means of ſecreting and purifying our juices, to enable them to increaſe their activity and exertion? By neglecting the critical period, they deſtroy the whole criſis of ſo much importance; and, though they go to bed towards morning, cannot certainly obtain, on that account, the full benefit of ſleep, as the critical period is paſt. They will never have a perfect, but an imperfect criſis; and what that means is well known to phyſicians. Their bodies alſo will never be completely purified.—How clearly is this proved by the infirmities, rheumatic pains, and ſwollen feet, the unavoidable conſequences of ſuch lucubration!

Beſides, the eyes ſuffer more by this cuſtom; for one labors then the whole ſummer through with candle-light, which

is not neceſſary for thoſe who employ the morning.

And, laſtly, thoſe who ſpend the night in labor, and the morning in ſleep, loſe that time which is the moſt beautiful and the beſt fitted for labor.—After every ſleep we are renovated in the propereſt ſenſe of the word; we are, in the morning, always taller than at night; we have then more pliability, powers and juices—in a word, more of the characteriſtics of youth; while, at night, our bodies are drier and more exhauſted, and the properties of old age then prevail. One, therefore, may conſider each day as a ſketch, in miniature, of human life, in which the morning repreſents youth; noon, manhood; and evening, old age. Who would not then employ the youthful part of each day for labor, rather than begin his work in the evening, the period of old age and debility?—In the morning, all nature appears freſheſt and moſt engaging; the mind at that period is alſo cleareſt, and

and poſſeſſes moſt ſtrength and energy. It is not, as at night, worn out, and rendered unequal, by the multifarious impreſſions of the day, by buſineſs and fatigue: it is then more original, and poſſeſſes its natural powers. This is the period of new mental creation—of clear conceptions and exalted ideas. Never does man enjoy the ſenſation of his own exiſtence ſo purely and in ſo great perfection as in a beautiful morning. He who neglects this period, neglects the youth of his life!

All thoſe who attained to a great age were fond of early riſing; and *John Weſley*, the founder of a particular methodiſtical ſect, an original and ſingular man, was ſo convinced of the neceſſity of this cuſtom, that he made it a point of religion to get up early, and by theſe means lived to the age of eighty-eight. His motto, which as a true maxim of life I ſhall here recommend, was:

> To go early to bed, and early to riſe,
> Will make a man healthy, wealthy, and wiſe.

CHAP. VII.

Bodily Exercise.

"WHEN I consider the physical structure of man," said the great *Frederick*, "it appears to me as if Nature had formed us rather to be postillions than sedentary men of letters." And, without doubt, though this expression be strong, it contains a great deal of truth. Man is, and always remains, a middle being, that incessantly fluctuates between the brute and the angel; and as much as he would deviate from his higher destination, did he continue the mere animal, as much does he offend against his present destination when he wishes to be merely spirit—to think only and to perceive. He must exercise his animal and spiritual powers

powers in the like degree, if he be desirous to accomplish perfectly the object for which he was created; and this, in regard to the duration of his life, is of the utmost importance. Harmony in the movements is the grand foundation on which health, uniformity of restoration, and the duration of the body, depend; and these certainly cannot take place if we merely sit and think. The propensity to bodily movement is, in man, as great as the propensity to eating and drinking. Let us only look at a child. Sitting still is to it the greatest punishment. And the faculty of sitting the whole day, and not feeling the least desire for moving, is certainly an unnatural and diseased state. We are taught by experience, that those men attained to the greatest age, who accustomed themselves to strong and incessant exercise, in the open air.

I consider it, therefore, as an indispensible law of longevity, that one should exercise, at least, an hour every day, in the

the open air. The moſt healthful time is before meals, or from three to four hours after.

In this reſpect, beſides ſmall journeys and excurſions on horſeback, moderate dancing and other gymnaſtic exerciſes are of great ſervice *; and it is much to be wiſhed that we here paid more attention to imitate the ancients, who managed ſcientifically this promoter of health, and ſuffered no external circumſtances to prevent them from uſing it. It is of moſt benefit when, not merely the body, but the ſoul alſo, is exerciſed and kept awake at the ſame time. A walk, therefore, to anſwer fully its object, muſt be directed to a quarter where the proſpects are always agreeable, and to a certain term or ſpot.

* On this ſubject I recommend a claſſical work which does honor to our nation: *Guthſmuth gymnaſtic*; and the following treatiſe by the ſame author, which will ſoon appear, *Spiele zur Uebung und Erholung des Körpers und Geiſtes für die Jugend.*

CHAP.

CHAP. VIII.

The enjoyment of free air—Moderate temperature of warmth.

THE enjoyment of free air may be consIdered as a nourishment equally necessary for our existence as eating and drinking. Pure air is certainly the greatest means of strengthening and supporting life; while confined and corrupted air is its most subtle and deadly poison.

From this may be deduced the following practical rules:

1st. Suffer no day to pass without enjoying the pure open air beyond the boundaries of a town or city. Consider your walk not merely as the means of exercise, but, in a particular manner, as the enjoyment of the purest vital nourish-

ment, which is indiſpenſibly neceſſary above all to thoſe who are much confined to their apartments. Beſides this advantage, one obtains that alſo of making one's ſelf, by ſuch daily enjoyment of air, acquainted and familiar with a free atmoſphere; and people are thus ſecured againſt one of the greateſt evils that at preſent afflict mankind, I mean *too much ſenſibility in regard to all impreſſions and variations of the weather*. This is one of the moſt abundant ſources of diſeaſe; and there is no other method of counteracting it, but to harden one's ſelf by daily expoſure to the open air.

Laſtly. By this cuſtom one will obtain infinite advantage in regard to the eyes; for it is certain that a great cauſe of weak eyes and ſhort-ſightedneſs are the four walls within which we are accuſtomed to live from our infancy, and by which the eyes at length loſe their whole power of ſeeing remote objects diſtinctly. The beſt proof of this is, that ſuch weakneſs

neſs of the eyes is to be found only in cities, and not in the country.

2d. One ſhould endeavor, wherever it is poſſible, to live high. Thoſe who have a regard for their health, at leaſt in cities, ought not to inhabit the ground-floor. Let the windows be opened daily. Ventilators or chimneys are the beſt means for purifying the foul atmoſphere of confined apartments. People ought not to ſleep in rooms which have been inhabited the whole day; and the windows of bed-chambers ſhould be always kept open in the day-time.

I muſt here add one remark of the utmoſt importance for the prolongation of life. The air in which one lives ſhould be kept in a moderate degree of temperature. It is much better to live in air too cool than too hot; for heat accelerates, in an extraordinary degree, the ſtream of vital conſumption, as is proved by the ſhorter lives of thoſe who inhabit warm countries; and many people create

artificially ſuch a climate by means of their hot apartments. The temperature of the air in an apartment ſhould never exceed 15° of Reaumur's thermometer.

CHAP.

CHAP. IX.

Rural and country life.

FORTUNATE are they to whofe lot it has fallen to remain near and true to their parent Earth; and to find their happinefs, labor, and deftination in immediate intercourfe with Nature! They refide at the real fource of eternal youth, health and felicity; both body and foul enjoy there the utmoft harmony and well-being. Simplicity, cheerfulnefs, innocence and contentment accompany them through life; and they attain to the utmoft term which it is capable of reaching with its prefent organization. I cannot refrain, therefore, from inferting here what *Herder* has already faid on this fubject:

"THE resolution of my friend to change
His walled prison for a rural seat
I much applaud—Why should we foolishly
Pile up in lofty towers the hard hewn rock?
To fright us with their sudden fall, or hide
From our dark eyes the cheering face of heaven!
Not so in former days lived the young world,
In innocence and peace; free from such folly,
'Midst rural scenes—There harmless mirth prevails,
And fills the breast with never-ceasing joy:
There we behold the wide-expanded heaven;
No neighbour robs us of the light of day;
And from the clear fresh spring Apollo bids us
Asswage our thirst with his own liquor.
O did but men know what is happiness!
Our mother Nature ne'er within dark cities,
Or gloomy walls and castles, it confin'd.
It on the plain blooms equally for all.
Those find it oft who seek it not; and he
Who spurns base ore will it enjoy—His treasure
Is what the earth presents—In the bright stream
He sees his silver; and his gold shoots up
In yellow corn, or smiles from fruitful trees.
He hears his concert in the shady grove;
And there his chorus, free at will to range,
Joins in the mirthful or the pensive strain.
Far otherwise within the town confin'd:
The captive songster in its cage complains!
The slave who feeds it thinks it sings alone

To

To pleafe its mafter; but with every note
It bids its tyrant give it liberty——
Nature delights in rural fcenes: and Art,
Her imitator, there muft follow her
With timid fteps.—Of foliage ever green
Behold yon palace, arched with thick woven boughs!
Where thou mayft fit, like Perfia's boafted lord
In halls of cedar—and 'midft peace enjoy,
What he ne'er knows, found, fweet, refrefhing fleep.
Great cities are great plagues!—There native joy
Flies from man's breaft, and makes him pleafure feek
In Art alone—There every thing by paint
Is feen difguifed—the countenance and walls—
Each action, words, and even the very heart—
All there confifts of coftly wood or ftone;
And even the owners feem as hard as thefe.
O rural life, 'midft poverty how rich!
When hunger bids, there thou may'ft nobly feaft
On what each feafon for thy ufe brings forth,
In rich variety.—The plough thy table;
And a green leaf, by way of difh, fupports
Thy meal of fruit. A homely wooden jug
Draws up refrefhing drink from the pure ftream,
Which, free from poifon, pours out health alone,
And with foft murmur thee to fleep invites:
While, in the air, the lark high-foaring fings—
Now mounting up, again defcending low—
Until, at length, it drops into its neft,
Juft at thy foot, between two furrows plac'd."

If one, indeed, be desirous of sketching out, according to theoretical principles, the idea of a life conducive to health and longevity, one must recur to that presented to us by a country life. Nowhere are all the requisites for that purpose so perfectly united as here; and nowhere does every thing in and around mankind labor so powerfully to promote health and longevity. The enjoyment of pure, sound air; simple and frugal food; daily and strong exercise without doors; established regularity in all the vital operations; the beautiful prospect of simple Nature; and a frame of internal peace, cheerfulness and serenity, which by these means are diffused throughout the mind—what sources of vital restoration! Besides, a country life is, in a particular manner, capable of giving that disposition which is contrary to the passionate, overstrained, and eccentric; and the more so as it removes us from the dissipation, corruption and worthlessness of

of the town, which tend always to nourifh the paffions. It confequently preferves, both internally and externally, peace of mind and equanimity, which are fo great fupports to life. It infpires us with cheerfulnefs and hope; and increafes our enjoyments in general, but without violence or paffion, and moderated by the fofteft tone of Nature.—It needs excite no wonder, then, that, according to experience, inftances of the greateft age are to be found in rural life only.

It is a melancholy reflection, that this kind of life, the earlieft and moft natural ftate of man, fhould at prefent be fo little efteemed that the fortunate farmer even quits it till his fon becomes a ftudious rake; and the proportion between countrymen and citizens feems daily to be diminifhed. It certainly would be much better for the happinefs of individuals, as well as of the whole, if the greater part of the pen-knives and fciffars now in ufe were converted into plough-fhares, and

and that thofe hands occupied in fcribbling were employed with the plough and the fpade. The former, to many, is indeed only labor of the hands; but the latter is the moft ufeful, and, if I am not much miftaken, we fhall be at length obliged, from political confiderations, to recur to it once more. Man muft again approach nearer to his parent Earth, from which he has fo far removed in every point of view.

All, indeed, cannot be farmers by profeffion; but how beneficial would it be if men of letters, people of bufinefs, and thofe who labor with their heads, would divide their time between both kinds of employment; and imitate the ancients, who, notwithftanding their philofophical or political engagements, did not think it beneath their dignity to devote their fpare hours to agriculture, and to rufticate in the proper fenfe of the word! All the melancholy confequences of a fedentary life, and overftraining the mental faculties,

culties, would disappear, if people, some hours every day, or a few months in the year, would take hold of a spade or a mattock and cultivate their field or their garden; for the usual method of living in the country, (which in general means nothing else than to carry along with one care and books, and to read, think, or write in the open air, instead of a chamber,) cannot accomplish that object. —Such rustication will again restore the equilibrium between the mind and the body, which the writing-desk so often destroys. By an union of these three grand panaceas, exercise, free air, and exhilarating the spirits, a renovation and restoration may be annually effected, which will be of incredible service to vital duration and happiness. Nay I do not think I say too much when I promise, from this practice, besides physical advantages, many of a spiritual and moral nature also. Cobwebs of the brain and hypotheses of the closet will certainly be less abundant;

abundant; people will not ſo often imagine the whole world to be contained in their perſons, or within the four walls of their ſtudies, and treat it in that point of view; and the mind will acquire a greater propenſity to truth, more ſoundneſs, more warmth, and a more natural manner of thinking—properties which diſtinguiſh the Greek and Roman philoſophers ſo much, and for which, in my opinion, they were indebted principally to their continual intercourſe with Nature. One ought therefore to be exceedingly careful never to ſuffer a *taſte* for *Nature* to be extinguiſhed in the mind. This taſte may be eaſily deſtroyed, by always living recluſe, by inceſſant application to buſineſs, and by abſtract ſpeculations in the cloſet; and when it is once loſt, the moſt beautiful rural ſcenes will have no effect upon us; and one, in the moſt delightful diſtricts, and under the ſereneſt ſky, may remain in a ſtate of living death. This may be beſt guarded againſt by not removing too long

long or too far from Nature; by quitting, as often as one can, the artificial and abſtract world; by opening all the ſenſes to the beneficent influences of Nature; and if one from the earlieſt youth endeavors to acquire a taſte for the ſtudy of Natural Hiſtory (a point which ought to be attended to in education), and to warm the imagination for it by the beautiful imitations of painting, and the heart-exalting deſcriptions of the poets of Nature, ſuch as a Zachariä, a Thomſon, a Geſner, a Matthiſon, &c.

CHAP.

CHAP. X.

Travelling.

I CANNOT poſſibly omit to devote here a particular place to this enjoyment, and to recommend it as a mean of prolonging life. The continual motion, variety of ſcene, exhilaration of the mind, and the uſe of free and changed air, have a magical effect upon mankind, and contribute in an incredible degree to renovate and revive the whole frame. Vital conſumption may indeed be thereby ſomewhat increaſed; but this is amply counterbalanced by the increaſed reſtoration which is effected, partly in regard to the body, by digeſtion being ſtrengthened and invigorated—and partly in regard to the mind, by a ſucceſſion of agreeable impreſ-

ſions,

ſions, and the forgetfulneſs of one's ſelf. This help, therefore, I recommend to thoſe whoſe employment condemns them to a ſedentary life, who are continually engaged in abſtract ſtudies or oppreſſive labor, whoſe minds have ſunk into a ſtate of inſenſibility, melancholy or hypochondriaſis, or, what is worſt of all, are ſtrangers to domeſtic felicity.

But as many employ it in ſuch a manner that it produces no effect, it perhaps may be of ſome ſervice to communicate here a few of the moſt important rules how people muſt travel in order to benefit their health and their life.

1ſt. Travelling on foot, or rather on horſeback, is the moſt healthful, and beſt calculated to anſwer the end propoſed; but when one is weakly, or undertakes long excurſions, it is more adviſable to travel in a carriage.

2d. When one travels in a carriage, it is very beneficial always to change the poſture; that is, to ſit ſometimes, and

ſometimes to recline, &c. By theſe means one can beſt prevent the evils attending continued riding in this manner, which are occaſioned principally by the jolting being in one direction.

3d. Nature will not ſuffer any ſudden tranſitions. It is therefore improper for people accuſtomed to a ſedentary life to undertake ſuddenly a journey during which they will be expoſed to violent jolting. The caſe here is the ſame as if one accuſtomed to drink water ſhould all at once begin to drink wine—Let the tranſition be ſlow, and begin with moderate motion.

4th. Excurſions, the object of which is health and the prolongation of life, muſt not be fatiguing; but this can be determined only by the difference of temperature and conſtitution. Ten or twelve miles daily, with a reſt every three or four days, may perhaps be the beſt ſtandard. One ought, above all things, to avoid travelling in the night-time; which,

which, by interrupting the neceſſary refreſhment, checking perſpiration, and expoſing the body to unhealthful air, is always prejudicial. By reſpecting nocturnal reſt, one may accompliſh twice as much in the day.

5th. People muſt not imagine that they may indulge a little more in intemperance when on a journey. One, however, needs not be too nice in the choice of food and drink; and it is always beſt to uſe the common fare of each country. But at any rate the ſtomach ought not to be overloaded. By the motion of travelling, the power of the body is too much divided for the ſtomach to admit of a large quantity of food; and the motion itſelf, by theſe means, will become more fatigueing. People, in particular, ſhould not indulge too much in heating food and liquors, as is ſo often the caſe on journeys; for travelling alone acts as a ſtimulus, and leſs ſtimulating nouriſhment is then required than in a ſtate of reſt. A want

of attention to this rule may occaſion too violent irritation, inflammation, accumulations of the blood, &c. It is moſt proper, on journeys, to eat rather little at a time, but often; to drink more than one eats; and to chooſe food eaſy of digeſtion, yet ſtrongly nutritive—not of a heating nature, and ſuch as cannot be readily adulterated. It is ſafeſt, therefore, in the country, and in paltry inns, to uſe milk, eggs, well-baked bread, boiled or roaſted meat, and fruit. I adviſe travellers, above all, to be on their guard againſt the wine kept in ſuch houſes. It will be much better to drink water with the addition of a little lemon juice, or of ſome good liquor which they may carry along with them. If the water ſtinks, it may be rendered ſweet by charcoal-powder *.

6th.

* This is one of the greateſt and moſt beneficial diſcoveries of modern times, for which we are indebted to Mr. Lowiz of Peterſburgh. Water which ſtinks, or has become putrid, may almoſt immediately

6th. Avoid immoderate exertion and waſting of the powers. It is, however, as difficult in general to lay down a proper ſtandard of motion, as of eating and drinking. But Nature, in this, has given us a very excellent guide—a ſenſe of laſſitude, which is here of as much importance as the ſenſe of ſatiety in eating or drinking. Wearineſs is nothing elſe than the voice of Nature, which tells us that our ſtock of powers is exhauſted, and that he who is tired ſhould enjoy repoſe. But Nature may, indeed, become loſt in habit;

immediately be freed from its nauſeous taſte, as well as its bad ſmell, and be converted into good drinkable liquor, by the following proceſs:—Take ſome burnt charcoal, and reduce it to a fine powder. Mix about a table-ſpoon-full of this powder in a pint of water; ſtir it well round, and ſuffer it to ſtand for a few minutes. Let it then run ſlowly through filtering paper into a glaſs, and it will be found quite tranſparent, without any bad taſte or ſmell, and perfectly pure for drinking. People may preſerve the charcoal powder a long time in a ſmall bottle well corked, and carry it with them when they travel.

and we may be as infenfible of laffitude as the continual glutton is of fulnefs, efpecially when the nerves are over-ftrained by ftimulating and heating food and drink.—There are then, however, other figns to tell us that we have exceeded the proper meafure; and I requeft that to thefe the ftricteft attention may be paid. When one begins to be low-fpirited or dejected; to yawn often, and be drowfy, yet at the fame time to be incapable of fleeping though one enjoys reft; when the appetite is loft; when the fmalleft movement occafions a fluttering of the pulfe, heat, and even trembling; when the mouth becomes dry, and is fenfible of a bitter tafte, it is high time to feek refrefhment and repofe, if one wifhes to prevent illnefs already beginning to take place.

7th. While one is travelling, infenfible perfpiration may eafily be checked; and cold is the principal fource of thofe difeafes which thence arife. It is advifable, therefore,

therefore, to guard againſt all ſudden tranſitions from heat to cold, or the contrary; and thoſe who have great ſenſibility in the ſkin, will do well, when they go on a journey, to carry a thin flannel ſhirt along with them.

8th. Cleanlineſs, when one travels, is doubly neceſſary; and, therefore, to waſh the body frequently with cold water is much to be recommended. This will contribute alſo, in a great degree, to remove laſſitude.

9th. During winter, or in a cold climate, one may always ſubmit to greater exerciſe than during ſummer, or in warm climates, where perſpiration exhauſts one half of the ſtrength. One, alſo, can undergo more fatigue early in the morning than in the afternoon.

10th. Full-blooded perſons, or thoſe who are ſubject to a ſpitting of blood, or the bloody flux, muſt conſult their phyſician before they undertake a journey.

CHAP. XI.

Cleanlineſs, and care of the ſkin.

BOTH theſe I conſider as important means for the prolongation of life.—Cleanlineſs removes every thing that Nature has ſecreted from us, as uſeleſs or corrupted; as well as every thing prejudicial, that might be conveyed to us, from without, through the ſuperficies of our bodies.

Care of the ſkin is an eſſential part of cleanlineſs, and conſiſts in paying ſuch attention to it from infancy, that it may be kept in a lively, active, and uſeful condition.

The ſkin, indeed, muſt not be conſidered merely as a common covering to defend us from the ſun and the rain, but as one of the moſt important organs of our

our body, without the inceſſant activity and agency of which there can be neither health nor long life; and in the neglect of which, in modern times, lies the ſecret ſource of numberleſs diſeaſes and evils that tend to ſhorten our exiſtence. May the following obſervations, therefore, make more impreſſion on my readers, and excite more attention to this organ and the management of it!

The ſkin is the greateſt medium for purifying our bodies; and every moment a multitude of uſeleſs, corrupted and worn-out particles evaporate through its numberleſs ſmall veſſels, in an inſenſible manner. This ſecretion is inſeparably connected with life, and the circulation of our blood; and by it the greater part of all the impurity of our bodies is removed. If the ſkin, therefore, be flabby or inactive, and if its pores be ſtopped up, an acridity and corruption of our juices will be the unavoidable conſequence, and the moſt dangerous diſeaſes may enſue.

Besides, the skin is the seat of *feeling*, the most general of all our senses, or that which in an essential manner connects us with surrounding Nature, and in particular with the atmosphere; and by the state of which, in a great measure, the sensation of our own existence, and the relation which we bear to every thing around us, is determined. Hence a greater or less sensibility, in regard to disease, depends very much on the skin; and those whose skin is weak or relaxed have generally a sensation too delicate and unnatural, by which means it happens that they are internally affected in a manner highly disagreeable, by every small variation in the weather, every change of the atmosphere, and at length become real barometers. Such a constitution is called the rheumatic, and arises chiefly from a want of strength in the skin. It occasions a tendency to perspiration, which is also an unnatural state, and which exposes us continually to colds and other disorders.

It is, likewiſe, a grand mean for preſerving an equilibrium in the powers and motion of our bodies. The more open and active the ſkin is, the more ſecure will people be againſt obſtructions, and diſeaſes of the lungs, inteſtines and lower belly; and the leſs tendency will they have to *gaſtric* (bilious) *fevers*, *hypochondriaſis*, *gout*, *aſthma*, *catarrh* and *hæmorrhoids*. One great cauſe of theſe diſorders being at preſent ſo common among us, is, that we no longer endeavor to cleanſe and ſtrengthen the ſkin by bathing and other means.

The ſkin, moreover, is one of the moſt important means of the reſtoration of our bodies, by which a multitude of fine ſpiritual component parts is conveyed to us from the atmoſphere. Without a ſound ſkin there can be no complete reſtoration, which is one of the chief principles of long life.

It ought alſo not to be forgotten, that the ſkin is the grand organ of criſes, that

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is to ſay, the aſſiſtant of Nature in diſeaſe; and that a man with open pores and a ſkin ſufficiently vigorous may depend on being cured much more eaſily and with more certainty, and often even without the uſe of medicine.

That ſuch an organ muſt be a great ſupport of health and life, no one will deny; and it is therefore incomprehenſible how people in modern times, ſince mankind have become more enlightened, ſhould neglect it ſo much. Nay we in general find, that, inſtead of paying the leaſt attention to it, they from their infancy do every thing in their power, as it were, to relax and to weaken it, and to ſtop up its pores. The moſt of mankind, except at baptiſm, never experience the benefit of bathing during their whole lives; the ſkin by dirt and daily perſpiration is more and more ſtopped up; weakened and relaxed by warm clothing, furs, feather-beds, &c.; rendered inactive by confined air and a ſedentary life; and I think I may, with-

out exaggeration, aſſert, that, among the greater part of men, the pores of the ſkin are half-cloſed and unfit for uſe.

Let me here be permitted to call the attention of my readers to an incongruity, which is not the only one of the kind in human life. The moſt ignorant perſon is convinced that proper care of the ſkin is indiſpenſibly neceſſary for the exiſtence and well-being of horſes and various animals. The groom often denies himſelf ſleep, and other gratifications, that he may curry and dreſs his horſes ſufficiently. If they become meagre and weak, the firſt reflection is, whether there may not have been ſome neglect or want of care in regard to combing them. Such a ſimple idea, however, never occurs to him in reſpect to his child. If it grows feeble and ſickly; if it pines away and is afflicted with worms in the external part of its body, (all the conſequence of dirtineſs,) he thinks rather of witchcraft and other abſurdities than of the real cauſe, neglect-

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ing to keep the ſkin pure and clean. Since we ſhew ſo much prudence and intelligence in regard to animals, why not in regard to men?

The rules which I have to propoſe for preſerving cleanlineſs, and a ſound ſtate of the ſkin, are remarkably eaſy and ſimple; and, if obſerved from youth, may be conſidered as very powerful means for the prolongation of life.

1ſt. Remove carefully every thing that the body has ſecreted as corrupted or prejudicial. This may be done by changing the linen often, daily if it be poſſible, and alſo the bed-clothes, or at leaſt the ſheets; by uſing, inſtead of a feather bed, a mattreſs, which attracts leſs dirt; and by continually renewing the air in apartments, and particularly in one's bed-chamber.

2d. Let the whole body be waſhed daily with cold water, and rub the ſkin ſtrongly at the ſame time, by which means it will acquire a great deal of life and vigor.

3d. One ought to bathe once a week, the whole year through, in tepid water; and it will be of conſiderable ſervice to add to it three or four ounces of ſoap. It is much to be wiſhed that public baths were again erected, that poor people might enjoy this benefit, and thereby be rendered ſtrong and ſound, as was the caſe ſome centuries ago*.

I cannot quit this ſubject without mentioning ſea-bathing, which, on account of its ſtimulative and penetrating power, may

* Traces of this laudable practice may ſtill everywhere be ſeen in the remains of baths and bathing-houſes; but the uſe of it has been abandoned through the inconceivable indolence of mankind. Every Sunday evening, people formerly went in proceſſion through the ſtreets, beating on baſons, to remind the lower claſſes of bathing; and the tradeſman, who labored at dirty work, waſhed off, in the bath, that dirt which now adheres to him perhaps during his whole life. In every place of any conſequence there ſhould be a bathing-houſe, or a floating bath on ſome river for the ſummer, and another for the winter. In bathing it ought to be a rule never to enter the

may be placed at the head of thoſe means that regard the care of the ſkin; and which certainly ſupplies one of the firſt wants of the preſent generation, by opening the pores, and thereby re-invigorating the whole nervous ſyſtem. This bathing is attended with two important advantages. The firſt is, that, beſides its great healing power, in caſes of diſeaſe, it may be employed by thoſe who are perfectly well, as the means moſt agreeable to Nature for ſtrengthening and preſerving health; which is not the caſe with a great

the water with a full ſtomach, but either faſting or four hours after eating; never to bathe when the body is hot; to remain in cold water not more than a quarter of an hour, and in warm water never more than three quarters; to be cautious of catching cold when one comes out, which may be beſt done by putting on a flannel gown; and during dry warm weather, to take moderate exerciſe afterwards—but in cold, moiſt weather, to remain for an hour in a warm apartment. More obſervations on this ſubject may be found in my *Gemeinnützigen Auſſätzen*, *Leipzig bey Göſchen*, in the chapter intitled *Erinnerung an die Bäder*.

many

many other kinds of bathing, that are injurious to a healthy perſon. In this reſpect it may be compared to bodily exerciſe, which can remove diſeaſes otherwiſe incurable—and which may be uſed alſo by thoſe who are ſound, in order to preſerve themſelves in that ſtate. The other advantage is, the noble, grand, and indeſcribable proſpect of the ſea connected with it; and which, on thoſe not acquainted with it, has an effect capable of bracing up the nervous ſyſtem, and producing a beneficial exaltation of the whole frame. I am fully convinced that the phyſical effects of ſea-bathing muſt be greatly increaſed by this impreſſion on the mind; and that an hypochondriac or nervous perſon may be half cured by reſiding on the ſea coaſt, and enjoying a view of the grand ſcenes of Nature which will there preſent themſelves; ſuch as, the riſing and ſetting of the ſun over the blue expanſe of the waters, the awful majeſty of the waves during a ſtorm, &c. For the like

purpoſe,

purpoſe, therefore, I would adviſe an inhabitant of the inland parts to take a journey to the ſea; and an inhabitant of the coaſt to make an excurſion to the Alps; for both, in my opinion, are the ſublimeſt productions of Nature. The thanks of the public are undoubtedly due to that exalted prince, ſo much a friend to mankind, who erected the firſt ſea-bath in Germany, at Dobrahn, near Roſtock; and to that worthy phyſician Vogel, who formed the plan of it in a manner ſo excellent and ſo likely to make it anſwer the intended purpoſe, and who aſſiſts its ſalutary effects by his preſence and advice.

4th. People ſhould wear clothing that does not tend to weaken the ſkin, and which may readily ſuffer the perſpiring matter to paſs through it. In this reſpect, I know nothing more prejudicial than to wear fur, which, by its great warmth, weakens the ſkin very much; does not promote evaporation, but ſweat; and, on account of the thickneſs of the leather,

leather, does not ſuffer the perſpiring particles to fly off. The conſequence is, that a continual vapor-bath is formed between the fur and the ſkin, and that a great part of the impure matter is again thrown back on the body, and imbibed by it. Far better is Engliſh flannel, which has the advantage of fur, without the diſadvantage of attracting dirt and occaſioning too much heat.—But all theſe warm coverings on the bare ſkin are to be recommended only during intenſe cold, or for weakly people ſubject to the rheumatiſm. In infancy and youth, and for thoſe whoſe bodies are ſound, it is far preferable to wear, next the ſkin, either linen or cotton, with a veſt of the ſame in ſummer, and in winter one of woollen.

5th. One ſhould uſe much bodily exerciſe; for this is a great promoter of inſenſible perſpiration.

6th. Avoid all food unfavorable to perſpiration. Of this nature is fat of every kind, pork, gooſe, cheeſe, &c.

CHAP. XII.

Proper food—Moderation in eating and drinking—Preservation of the teeth.

THE idea of proper regimen is somewhat relative. In general, we find that those men who were not too nice or particular in regard to their food, but who lived sparingly, attained to the greatest age; and it is an advantage peculiar to man, that he can digest and assimilate the most heterogeneous kinds of nourishment, and is not, like other animals, confined to one certain class. It is proved that people in a natural state, who are much exposed to the free open air and to exercise, require few rules respecting their diet. It was our artificial manner of living that first rendered regimen necessary.

It

It is at any rate certain, that the prolongation of life does not ſo much depend on the quality, as on the quantity, of our nouriſhment; and the inſtance of *Cornaro* affords an aſtoniſhing proof how far a man of a weakly conſtitution may thereby prolong his exiſtence.

It may with truth be aſſerted, that the greater part of mankind eat more than is neceſſary; and, by being crammed and over-fed in infancy, we are deprived of that natural ſenſation which ought to tell us when we have enough.

I ſhall here only give ſuch common rules in regard to eating and drinking as will ſuit the generality of mankind; and which, I am convinced, will have an eſſential influence in prolonging life.

1ſt. It is not what we eat, but what we digeſt, that does us good, and ſerves to nouriſh our bodies.—*He who wiſhes to live long, ought, therefore, to eat ſlowly*; as our food muſt obtain in the mouth the firſt degree of preparation and aſſimila-

 tion.

tion. This is effected by its being sufficiently chewed and mixed with saliva; both which I consider as a principal part of the business of restoration, and consequently set great value upon it in regard to the prolongation of life, especially as it appears by my researches that all those who were accustomed to eat slowly attained to a great age.

2d. A great deal depends on *good teeth*; and, therefore, I can with propriety reckon *preservation of the teeth* among those means that tend to prolong life. By the following rules, if observed from infancy, the teeth may be preserved fast and sound to the greatest age.

One must always join with the flesh used for food a sufficient quantity of vegetables and bread; for flesh adheres more readily between the teeth, and tends to rot and destroy them. It will be found, therefore, that those who use little or no flesh, boors and country people, have always the best teeth, though they never clean

clean them. But no tooth-powder can be more efficacious than a piece of dry burnt bread; and it is a cuſtom very ſalutary for the teeth, to chew ſlowly a cruſt of bread after every meal.

Avoid expoſing the teeth to a ſudden tranſition from heat to cold, or the contrary; for the teeth are covered with a glaſſy kind of enamel, which may be eaſily cracked by ſuch ſudden changes; ſo that corrupted particles can inſinuate themſelves into the rents, and lay the firſt foundation of putrefaction within them. It will be beſt, therefore, never to take too hot or too cold things into the mouth; and to be careful, above all, not to drink cold liquor while you are eating warm food, ſuch as hot ſoup, &c.

Never eat ſugar; and avoid confections, which are mixed with a great deal of tough calcareous particles.

As ſoon as you obſerve that a tooth is decayed, have it immediately pulled out, otherwiſe it will infect the reſt.

Waſh your teeth with water every morning, and in particular after each meal. This will remove any remains of food adhering to them, which commonly fix themſelves between the teeth, and lay the firſt ground for corruption.

Thoſe who obſerve theſe rules will ſeldom have occaſion for tooth-powder. But if the teeth have a tendency, as is the caſe naturally in ſome men, to become foul, or to acquire what is called tartar, I recommend the following harmleſs preſcription:—Take half an ounce of red ſandal wood, with a quarter of an ounce of China root; reduce them to a fine powder, and ſift it through a hair-ſieve. Then add to it ſix drops of the oil of cloves, and the ſame quantity of bergamot oil; and rub the teeth with it in the morning.

3d. Beware of ſtudying, reading, or ſtraining the head while at table. That period muſt certainly be conſecrated to the ſtomach. It is the time of its government; and the mind muſt no farther

interfere

interfere with it than may be neceſſary to aſſiſt its operations. Laughter is one of the greateſt helps to digeſtion with which I am acquainted; and the cuſtom, prevalent among our forefathers, of exciting it at table by jeſters and buffoons, was founded on true medical principles.—In a word, endeavor to have cheerful and merry companions at your meals. What nourishment one receives amidſt mirth and jollity, will certainly produce good and light blood.

4th. Do not expoſe yourſelf to violent motion after meals; for this will diſturb, in an aſtoniſhing degree, the digeſtion and aſſimilation of your nouriſhment. It will be beſt to ſtand, or to walk about ſlowly. The propereſt time for exerciſe is before meals, or three hours after.

5th. Never eat ſo much that you feel you have a ſtomach. It will be beſt to give over before you are completely ſated. The quantity of food muſt be always proportioned to one's bodily labor: the

leſs the labor, the leſs ought to be the nouriſhment.

6th. In the choice of food one ſhould incline more to vegetables. Fleſh has always a greater tendency to putrefaction; and vegetables, on the other hand, to acidity, which corrects putrefaction, our continual and greateſt enemy. Beſides, animal food is always of a more heating and ſtimulating nature; whereas vegetables produce cool, mild blood—leſſen the internal motion, mental as well as bodily irritability—and powerfully retard vital conſumption. Laſtly, animal food yields more blood and nouriſhment; and requires, in order to be beneficial to us, much more labor and bodily motion; and, by the uſe of it, one alſo is liable to become plethoric. On this account it is not proper for men of letters, and thoſe who ſit a great deal; as ſuch people do not require ſo ſtrong reſtoration, or ſo much addition of ſubſtance, but only of thoſe fine nouriſhing juices that are neceſſary

ceſſary for the ſpiritual functions. One, above all, ought to avoid fleſh in ſummer, and when putrid fevers are prevalent. We find that it is not thoſe who lived on fleſh, but on vegetables, pulſe, fruit, and milk, who attained to the greateſt age—*Lord Bacon* mentions a man of 120, who, during his whole life never uſed any other food than milk. The Bramins, by their religion, are confined merely to vegetables, and, for the moſt part, live to the age of 100. *John Weſley*, in the middle of his life, gave over the uſe of fleſh; lived upon vegetables alone, and attained to the age of 88.

7th. At night, one ought to eat ſparingly, and to uſe little or no fleſh—if cold it will be beſt; and to ſup a few hours before bed-time.

8th. Never neglect to uſe a ſufficient quantity of drink. It too often happens that people, by inattention to the calls of Nature, forget drinking altogether, and are no longer reminded of it; which is the

the grand cauſe of aridity, obſtructions in the lower belly, and a multitude of diſeaſes to be found ſo frequently among men of letters, and females, who lead a ſedentary life. But it is to be obſerved, that the beſt time for drinking is not while one is eating, as the gaſtric juices are thereby rendered too thin, and the ſtomach weakened—but about an hour after meals.

The beſt drink is *water*, a liquor commonly deſpiſed, and even conſidered as prejudicial—I will not heſitate, however, to declare it to be one of the greateſt means for prolonging life. Read what is ſaid of it by that reſpectable veteran *Mr. Theden*, ſurgeon-general, who aſcribes his long life of more than 80 years chiefly to the daily uſe of ſeven or eight quarts (from twenty to twenty-four pounds) of freſh water, which he drank for upwards of forty years. Between his thirtieth and fortieth year he was a moſt miſerable hypochondriac, oppreſſed

with the deepeſt melancholy; tormented with a palpitation of the heart, indigeſtion, &c.; and imagined that he could not live ſix months. But from the time that he began this water-regimen, all theſe ſymptoms diſappeared; and, in the latter half of his life, he enjoyed better health than before, and was perfectly free from the hypochondriac affection.—One great point, however, is, that the water muſt be *freſh*, that is, recently drawn from a ſpring or running ſtream, and be put into a veſſel well ſtopped; for all ſpring water, like the mineral, contains fixed air, which renders it ſtrengthening and favorable to digeſtion.—Pure, freſh water, has the following advantages, which certainly muſt inſpire us with reſpect for it:

The element of water is the greateſt and only promoter of digeſtion—By its coldneſs and fixed air it is an excellent ſtrengthener and reviver of the ſtomach and nerves. On account of its abundance of fixed air, and the ſaline particles

it

it contains, it is a powerful preventative of bile and putrefaction. It aſſiſts all the ſecretions of the body. Without water there could be no excretion—As, according to the lateſt experiments, oxygene is a component part of it, by drinking water we actually imbibe a new ſtimulus of life.

I cannot here omit to ſay ſomething in favor of ſoups (liquid nouriſhment), ſince it has been lately faſhionable to decry them as prejudicial.

The moderate uſe of ſoups is certainly not hurtful; and it is ſingular that people ſhould imagine that it tends too much to relax the ſtomach. Does not all our drink, even though cold, become in a few minutes a kind of warm ſoup in the ſtomach; and does not the ſtomach retain the ſame temperature during the whole day? Be careful only not to uſe it hot, in too great quantity at one time, or too watery. It is attended even with great advantages. It ſupplies the place

of

of drink, particularly to men of letters, women, and all thoſe who do not drink, or drink very little except at table, and who, when they give over ſoup, receive into their blood too little moiſture. And it is here to be remarked, that fluids uſed in the form of ſoup unite much better and ſooner with our juices than when drunk cold and raw. On this account ſoup is a great preventative of dryneſs and rigidity in the body, and therefore the beſt nouriſhment for old people and thoſe who are of an arid temperament. It even ſupplies the place of medicine. After catching cold, in nervous headachs, colics, and different kinds of cramp in the ſtomach, warm ſoup is of excellent ſervice. It may ſerve as a proof of the utility, or at leaſt harmleſſneſs, of ſoup, when I remark that our forefathers, who certainly had more ſtrength than we have, uſed ſoup; that it is uſed by ruſtics, who are ſtill ſtronger than thoſe in refined life; and that all the old people with

whom I ever was acquainted were great friends to it.

Wine rejoices the heart of man, but it is by no means neceſſary for long life, ſince thoſe who never drank it ſeem to have become oldeſt. Nay, as a ſtimulant, which accelerates vital conſumption, it may tend very much to ſhorten life, when uſed too frequently, or in too great abundance. To render it friendly and not prejudicial to life, it muſt be drunk daily, but always in moderation: the younger a man is in leſs, and the older in the greater quantity. It is beſt when one conſiders and uſes wine as the ſeaſoning of life, and reſerves it for days of mirth and recreation to enliven the friendly circle.

CHAP.

CHAP. XIII.

Mental tranquillity—Contentment—Diſpoſitions of mind and employments which tend to prolong life.

PEACE of mind, cheerfulneſs and contentment, are the foundation of all happineſs, all health, and long life. Some may here ſay, theſe are means which we have not in our own power; they depend upon external circumſtances—But to me it appears that the caſe is not ſo; for, otherwiſe, the great and rich would be the moſt contented and happy, and the poor the moſt miſerable. Experience, however, ſhews the contrary; and more contentment, without doubt, is to be found amidſt poverty, than among the claſs of the rich and wealthy.

There

There are ſources then of contentment and happineſs which lie in ourſelves, and which we ought carefully to ſearch out and to uſe. Let me here be permitted to mention a few of theſe helps, recommended by the ſimpleſt philoſophy; and which I offer merely as rules of regimen —the good advice of a phyſician how to prolong life.

1ſt. Endeavor, above all things, to ſubdue your paſſions. A man who is continually ſubject to the impulſe of his paſſions, is always in an extreme and exalted ſtate, and can never attain to that peaceful frame ſo neceſſary for the ſupport of life. His internal vital conſumption is thereby dreadfully increaſed, and he muſt ſoon be deſtroyed.

2d. People ſhould accuſtom themſelves to conſider life not as an object, but the means of attaining to higher perfection; and our exiſtence and fate as always directed to a higher aim, and ſubjected to a more exalted power. They ſhould

never

never lofe fight of that point of view which the ancients named truft in providence. They will thus have the beft clue to direct their way through the labyrinth of life, and the greateft fecurity againft all attacks by which their peace of mind might be difturbed.

3d. Live always, but in the proper fenfe, for the day; that is, employ every day as if it were your laft, without taking any thought for to-morrow. Unhappy men who ftill think of what is to come, and, amidft your plans and projects for the future, lofe the enjoyment of the prefent! The prefent is the parent of the future; and he who fully employs each day and each hour according to its deftination, can in the evening lie down to repofe with the agreeable fatisfaction of having not only lived that day and fulfilled its object, but of having alfo laid the beft foundation for the enjoyment of the future.

4th. Endeavor to form as juft conceptions as poffible of every event, and you

will find that the greater part of the evils in the world arise from mistakes, false interest, or precipitation; and that the principal point is not so much *what* is done to us, as *how* we take it. He who possesses this happy talent is independent of external circumstances. As *Weishaupt* has already said *, "It is certain that wisdom alone is the source of pleasure, and that folly is the source of misery. Without a total resignation in the will of providence, a conviction that all events are ordered for our good, and that contentment with the world which thence arises, every thing is folly, and will lead to dissatisfaction."

5th. One should always strengthen and confirm more and more one's trust and confidence in mankind, and in all the noble virtues, benevolence, friendship, affection and humanity which thence arise. Consider every man as good till you are

* See *Apologie des Misvergnügens.*

convinced

convinced of the contrary by inconteſtible proofs; and even then man ought to be looked upon as a being miſled by error, who deſerves our compaſſion much rather than our hatred. Man indeed would be good, were he not ſeduced by ignorance, miſconception, and falſe intereſt. Wo to thoſe whoſe philoſophy conſiſts in truſting no one! Their life is a continual ſtate of defenſive and offenſive war; and they muſt bid farewell to cheerfulneſs and contentment. The more a man entertains good wiſhes to all around him, the more will he render others happy, and the more happineſs will he himſelf enjoy.

6th. To promote contentment and peace of mind, *Hope* is indiſpenſibly neceſſary. He who can hope prolongs his exiſtence, not merely in idea, but phyſically, by the peace and equanimity which he thus ſecures.—I do not allude here to hope within the narrow boundaries of our preſent exiſtence, but to hope beyond

the grave! In my opinion, hope in immortality is the only hope that can make life of any value, and render the burthens of it eaſy and ſupportable.—Hope and Faith, ye great and divine virtues! Who, without you, is able to wander through a life ſo full of error and deceit—whoſe beginning, as well as end, is involved in thick darkneſs; the duration of which is a moment, and in which we ſcarcely begin to look forwards to futurity when we are ſwallowed up by deſtruction. Ye are the only ſupports of the wavering; the greateſt revivers of the weary traveller. Thoſe who do not honor you as exalted virtues, muſt embrace you as indiſpenſible aſſiſtants in this terreſtrial life, and endeavor to be ſtrong in you through a love for themſelves, if not through a love for the things that are inviſible.—In this reſpect one can ſay that religion itſelf may be a mean for prolonging life. The more it ſubdues the paſſions, pro-

motes ſelf-denial, produces internal tranquillity, and enlivens the above conſoling truths, the more will it ſerve to extend the period of mortal exiſtence.

Joy, alſo, is one of the greateſt panaceas of life. One muſt not, however, believe that it is always neceſſary to excite it by ſought-for events and fortunate incidents. By that frame of mind which I have already delineated, people may be rendered ſuſceptible of it; and thoſe who have attained to that happy diſpoſition will never want opportunities of rejoicing. But one ſhould never neglect to ſeek and employ every occaſion of indulging in joy that is pure and not too violent. No joy is more healthful, or better calculated to prolong life, than that which is to be found in domeſtic happineſs, in the company of cheerful and good men, and in contemplating with delight the beauties of Nature. A day ſpent in the country, under a ſerene ſky, amidſt a circle of agreeable friends, is certainly

a more poſitive mean of prolonging life than all the vital elixirs in the world.—*Laughter*, that external expreſſion of joy, muſt not here be omitted. It is the moſt ſalutary of all the bodily movements; for it agitates both the body and the ſoul at the ſame time; promotes digeſtion, circulation and perſpiration; and enlivens the vital power in every organ.

The higher purſuits and employment of the mind deſerve here a place alſo; but I muſt remark, that it will be neceſſary to obſerve thoſe prudential rules, which I have already laid down, to prevent an abuſe of them. Theſe higher enjoyments and pleaſures are entirely peculiar to man, and an important ſource of vital reſtoration. Among theſe I reckon, above all, the reading of agreeable and inſtructive books; the ſtudy of intereſting ſciences; contemplating Nature, and examining her ſecrets; the diſcovering of new truths, by the combination of ideas, improving converſation, &c.

CHAP. XIV.

Reality of character.

IT is well known how extremely prejudicial to life is that occupation which renders it neceſſary for a man to exiſt ſome hours daily in an aſſumed ſtate, not natural to him—I mean the employment of a player.

What then muſt the caſe be with thoſe people who always carry on a like occupation, who are continually acting this or the other feigned part on the grand theatre of the world, and who never really are what they appear to be? Thoſe indeed who are deceitful, live always under diſguiſe, reſtraint, and a falſe character. They may be found, above all, among the over refined and too highly

cultivated claſſes of mankind: but I am acquainted with no condition more unnatural.

It is bad enough to be obliged to wear clothes not made for us, which everywhere pinch and confine us, and which render every movement painful.—But what is this to wearing a falſe character; to a moral reſtraint, where our words, conduct, geſtures, and actions, are in continual oppoſition to our internal feelings and wiſhes; where we violently ſuppreſs our ſtrongeſt natural propenſities, and aſſume foreign ones; and where we are obliged to keep continually ſtrained, every nerve and every veſſel, in order to carry on that deception which is our whole exiſtence?—Such a falſe ſtate is nothing elſe than a continual cramp; and this is proved by the conſequences. An inceſſant reſtleſſneſs and anxiety, deranged circulation and digeſtion, continued contradiction both phyſical and moral, are its unavoidable effects. In the end,

end, it becomes impoſſible for theſe unfortunate men to lay aſide this aſſumed character; ſo that it becomes a ſecond nature. They are at length loſt, and cannot again find themſelves.—In a word, this falſe ſtate keeps up continually a ſecret nervous fever. Internal irritation, and external cramp, are, both, parts of it; and it muſt lead to deſtruction and the grave, the only place where ſuch wretched beings can hope ever to lay aſide the maſk.

CHAP.

CHAP. XV.

Agreeable ſtimulants of the ſenſes and of ſenſation moderately uſed.

THESE have a double effect in the prolongation of life. In the firſt place, by their immediate influence on the vital power, they enliven, ſtrengthen, and exalt it; and, ſecondly, by increaſing the activity of the whole machine, they put into much greater activity the organs of digeſtion, circulation and ſecretion, which perform the moſt important functions of reſtoration. A certain cultivation and refinement of our ſenſibility is therefore healthful and neceſſary; becauſe it renders us more ſuſceptible of theſe enjoyments; only it muſt not be carried too far, elſe it may become a diſeaſe. In ſti-

mulating the ſenſes alſo great care muſt be taken not to exceed the proper meaſure; for the ſame enjoyment which, when uſed in a moderate degree, is capable of reſtoring, may, if uſed too much, conſume and exhauſt.

All agreeable ſtimulants, which can affect us through the ſight, hearing, ſmell, taſte and feeling, may be included under this head; and therefore the pleaſures of muſic, painting, and the other imitative arts, poetry, &c. as they can exalt and renew theſe enjoyments. In the preſent view, however, it appears to me that *Muſic* deſerves the preference, becauſe no mental impreſſion can have ſo ſpeedy and immediate an effect in tuning, enlivening, and regulating the vital operations. Our whole frame aſſumes ſpontaneouſly the tone and character of the muſic; the pulſe becomes either quicker, or more calm; the paſſions are rouſed, or ſoftened, according to the will of this language of the ſoul, which, without words, merely through the

power

power of melody and harmony, acts immediately upon our moſt internal organs, and by theſe means enchants us often more irreſiſtibly than eloquence itſelf. It is much to be wiſhed that the ſtudy of muſic in this view were more common, and that it were more employed for ſuch a noble purpoſe.

CHAP.

CHAP. XVI.

Preventing diſeaſes—Judicious treatment of them—Proper uſe of medicine and phyſicians.

DISEASES, as has been already ſhewn, belong, for the moſt part, to thoſe cauſes which ſhorten life, and are even capable of breaking the vital thread abruptly. The buſineſs of medicine is to guard againſt theſe, as well as to cure them; and ſo far medicine may be conſidered and employed as a mean for prolonging life.

But error, here, is too common. Sometimes it is believed that this beneficial art can never be ſufficiently employed, and that people can never take too many medicines. Sometimes it is ſo much abhorred, as ſomething unnatural, that too few are uſed; and ſometimes the falſeſt conceptions

conceptions are formed of medicine, as well as of phyſicians; and both are employed in an improper manner. To this may be added, in modern times, a multitude of popular books, by which a great deal of crude, indigeſted information on medical ſubjects has been diffuſed among the public; and hence a greater miſapplication of medicine has been occaſioned, and the utmoſt injury to the health of mankind in general.

It is impoſſible for every one to be a phyſician. Phyſic is a ſcience ſo extenſive and difficult, that it requires cloſe and long continued ſtudy, and even a peculiar formation of mind and of the higher powers of the ſoul. An acquaintance with the rules and means for curing diſeaſes does not form a phyſician, as ſome imagine. Theſe rules and means are the reſult of medical experience; and he only who can perceive the connection of them with the cauſes of diſeaſe, and the whole chain of grounds and inferences from which

which they are deduced, in a word, who can himſelf diſcover theſe means, deſerves to be called a phyſician. From this it appears that the art of medicine never can be known by the generality of the public.

That branch of the medical art only which teaches an acquaintance with the human body, ſo far as it may be uſeful for every man to know, and the method and manner of guarding againſt diſeaſes and preſerving health, both individually and generally, can, or ought to form a part of that inſtruction and information which ſhould be communicated to the public. This is evident from the ſimple idea of diſeaſe, and the helps to be applied. What is meant by adminiſtering medicines and curing diſeaſes? Nothing elſe than by an unuſual impreſſion to produce an unuſual change in the human body, by which an unnatural ſtate named diſeaſe may be removed. Diſeaſe and the operating of medicines are each an unnatural ſtate; and the

the application of medicine is nothing elſe than exciting an artificial diſeaſe, in order to expel one that is natural. This may be ſeen when a man in good health takes phyſic, which will always render him ill in a greater or leſs degree. The uſe of medicine is, therefore, of itſelf prejudicial; and can be excuſed and rendered healthful only when a more diſeaſed ſtate of the body is thereby removed. This right of making one's ſelf or others ſick artificially, ought never to be exerciſed but by thoſe who are ſufficiently able to diſcover what proportion the diſeaſe may bear to the means; conſequently, by phyſicians; otherwiſe it may happen that, when the means perhaps are altogether unneceſſary, one may be rendered ill; or that the means will not be ſuited to the diſeaſe, and therefore the poor patient muſt ſuffer under two maladies inſtead of having one; or that the means may promote and increaſe the diſeaſed ſtate already exiſting. In caſes of diſeaſe it will be far

far better to uſe no medicine at all, than to employ that which is not proper.

As none, therefore, but people regularly bred, ought to be allowed to practiſe medicine, this important queſtion ariſes: *How muſt medicine be uſed when we wiſh to employ it as the means of prolonging life?* In order to anſwer the above queſtion, I ſhall here give ſome general rules and definitions.

But, firſt, let me be permitted to ſay a few words on a part of this reſearch, which, though moſt intereſting to the phyſician, is of too much importance even to others to be paſſed over in ſilence. I mean, *How does the practice of phyſic, in general, contribute to the prolongation of life?* Can one conſider it abſolutely as a mean for prolonging our exiſtence? Without doubt we can, ſo far as it cures diſorders that might deſtroy us—but not always in other reſpects: and I ſhall here add, for the conſideration of my phyſical brethren, a few obſervations which may ſhew that

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to reſtore health and prolong life are not the ſame; and that the point is not merely to cure a diſeaſe, but *how* it is cured.—*Firſt*, it is certain, from what has been ſaid, that medicine operates by occaſioning an artificial illneſs. Every diſeaſe is attended with irritation and a loſs of powers. If the medicine, therefore, be more powerful than the diſeaſe, the patient will be cured; but he will be more weakened by the proceſs of the cure, and more will be deducted from the duration of his life than would have been taken from it by the diſeaſe. This is the caſe when people, on trifling occaſions, employ immediately the moſt powerful and the moſt violent medicines.—*Secondly*, a diſeaſe may be cured by various ways and methods. The difference is, that one leads the criſis ſometimes to one part, and ſometimes to another; or that the diſorder is removed ſooner by one method, and more ſlowly by another. Theſe different modes of cure may all, however, lead to a reſto-

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ration of health, but be of very different effect in regard to the prolongation of life. The more a cure allows the diseafe to continue, and to weaken the powers and the organs; or the more it affects the organs neceffary for life, or conducts the diseafe thither, and confequently impedes afterwards vital reftoration, (as for example, when the important fyftem of digeftion is made the feat of the difeafe, and weakened by powerful remedies,); or laftly, the more a cure waftes unneceffarily the vital power in general, as by too profufe bleeding, withdrawing the ufual nourifhment too inceffantly, &c. the more will it weaken the grounds of longevity, even though it may remove the difeafe.—*Thirdly*, one muft never forget that difeafe itfelf may be ufeful and neceffary for prolonging life. There are many difeafes which are nothing elfe than an exertion of Nature to reftore the equilibrium that has been deftroyed, to evacuate corrupted matter, or to diffipate obftructions. If a

physician, therefore, (according to the true *Brownonian* method) does nothing more than check the disease from shewing itself outwardly, without paying attention to remote causes and consequences, he only destroys the active counteraction of Nature, by which it endeavors to remove the real disease: he quenches the fire outwardly, but suffers it to burn more violently within. He nourishes the germ, the material cause of the evil, which perhaps would have been banished by this process of Nature had it been suffered to be completed, and renders it stronger and more incurable. We have too many instances of patients who believed themselves perfectly cured of a fever or the dysentery, and who afterwards became hectic, or fell into the hypochondriasis, nervous weakness, and the like. No one will deny that such a cure, though it seems for the present to restore the patient to health, may nevertheless shorten the duration of his life.

I ſhall now proceed to anſwer a queſtion which concerns thoſe only who are not phyſicians: *By what means can diſeaſes be prevented; how ought thoſe which have already appeared to be treated; and, in particular, how ought phyſicians and the medical art to be employed in order to contribute in the higheſt degree poſſible to the ſupport and prolongation of life?*

But let me firſt ſpeak of the means to be uſed for preventing diſeaſes.—As there are two things which belong to the origin of every diſeaſe, the cauſe that excites it, and the capacity of the body for being affected by this cauſe, there are two ways by which diſeaſe may be prevented—either to remove that cauſe, or to deſtroy the ſenſibility of the body in regard to it; and upon this is founded the whole medical diætetic, and all the preventative methods. The firſt method, which has been moſt commonly purſued, is the moſt uncertain; for, as long as we are not able to alter our mode of living, it will be im-

poſſible to guard againſt every cauſe of diſeaſe; and the more we deviate from it, the more will we be affected by them when they attack us. For inſtance, cold never hurts any one ſo much as thoſe who, in general, keep themſelves exceedingly warm. Far better is the ſecond method, to endeavor to guard againſt thoſe cauſes of diſeaſe which can be avoided; and to accuſtom one's ſelf to the reſt, in order that the body may be rendered inſenſible to them.

The principal cauſes of diſeaſe, which can, in a great meaſure, be guarded againſt, are, intemperance in eating and drinking, immoderate enjoyment of phyſical love, great heat and cold, or a ſudden tranſition from the one to the other; paſſions, violent exertion of the mind, too much or too little ſleep, checked evacuations, and poiſons.

One ought, however, to render the body leſs ſuſceptible of theſe cauſes, or to harden it pathologically; and for that purpoſe

pofe I recommend the following means: Firft, the daily enjoyment of free air. In good or bad weather, during rain, wind or fnow, the excellent practice of walking or riding for a few hours in the open air, muft be continued every day *without exception.* This will contribute in an incredible degree to harden the conftitution, and to promote longevity; and, when done daily, the body will foon become fo ftrong as to be affected by no kind of weather. It is to be recommended, therefore, in particular, to thofe who are fubject to the gout and the rheumatifm.—Secondly, to wafh daily the whole body with cold water; not to keep one's felf too warm; and to preferve the activity of the body. Never let the body fink into too paffive a ftate—but endeavor, by mufcular motion, friction, and gymnaftic exercifes, to keep up in it a kind of counteraction. The more paffive the body is, the more fufceptible will it be of difeafe.—Laftly, a certain freedom and immunity from reftraint in your way of

life; that is to ſay, do not bind yourſelf too rigidly to certain rules and habits, but allow yourſelf a moderate indulgence. Thoſe who confine themſelves with too much ſeverity to order and regimen, be they ever ſo good, make themſelves thereby more ſuſceptible of diſeaſe; for if they deviate in the leaſt from what is now become to them a ſecond nature, ſome kind of indiſpoſition will be the conſequence. A little irregularity, by the gentle revolutions which it effects in the body, may be of great uſe in purifying, opening and diſſipating; and even pernicious things loſe a great deal of their noxious quality when one is accuſtomed to them. A little leſs ſleep than uſual; to drink ſometimes a glaſs more than common; to eat a little more food, or ſubſtances harder of digeſtion; to expoſe one's ſelf to cold or heat by riding, dancing, and the like; to take exerciſe till one is tired, and ſometimes to faſt a day, are all means, therefore, that contribute to harden the body, and which give

give more latitude to the health, as they free it from too ſlaviſh a dependence on the uniformity of habit, to which it is not always poſſible for us to be confined.

A grand point in guarding againſt diſeaſe is, that every one ſhould try to diſcover to what malady he is conſtitutionally moſt diſpoſed, in order that this tendency may be deſtroyed, or at leaſt that all opportunity of its being converted into diſeaſe may be removed. On this is grounded individual regimen; and every man ought to obſerve that which is proper for him, ſo far as to counteract his particular morbific diſpoſition. To enquire into and determine this point is indeed the buſineſs principally of the medical practitioner; and I am therefore of opinion, that people, on a ſubject of ſo much moment, ſhould conſult an intelligent phyſician, and allow him to judge what diſeaſes they have the greateſt diſpoſition to, and what regimen may be beſt ſuited for them. In this reſpect the ancients

ancients were more prudent than we. They employed the medical art and physicians chiefly for determining their diætetic mode of life; and even their astrological, chiromantic, and other researches of the like kind, tended, at bottom, to define the moral and physical character of man, and to prescribe for him accordingly a proper mode of living and regimen. They undoubtedly did much better in thus employing their physicians than if they had run to them every week to make them prescribe for them purgatives or emetics. But for this purpose a judicious, prudent, and acute physician is necessary; while, on the other hand, any empiric is capable of writing a prescription. These people, at any rate, had a surer mean of distinguishing a false from a true prophet.

That those unacquainted with the medical art may be enabled, as much as possible, to determine the nature of their constitution, and what tendency it has to disease, I shall here give the following rules:

1st.

1ſt. Examine what diſpoſition to diſeaſe you inherit from your parents. There are certain morbific tendencies which may be communicated by generation, ſuch as to the gout, hæmorrhoids, ſtone, nervous weakneſs, and conſumption. If theſe evils have taken root in the parents at the time of procreation, there is great reaſon to ſuſpect a diſpoſition to them in the children. By a proper regimen they can, however, be prevented from attaining to a great height.

2d. A diſpoſition to ſome diſorders may be created by the firſt treatment in infancy; eſpecially if a child be kept too warm, which excites a tendency to perſpiration, renders the ſkin flaccid, and, by theſe means, diſpoſes the body to rheumatic diſorders.—Onaniſm, or too early application to learning, gives a tendency to nervous weakneſs, and diſeaſes of the nerves.

3d. A tendency to certain diſeaſes is connected with ſome forms and kinds of

bodily ftructure. Thofe who are tall and thin, who have a long flender neck, a flat breaft, projecting fhoulders, and who have grown up fuddenly to a great height, muft be on their guard chiefly againft confumptions, and in particular as long as they are under the age of thirty.—Thofe who have a fhort thickfet body, a large thick head, with a fhort neck, fo that the head feems to be ftuck between the fhoulders, fhew a difpofition to the apoplexy, and muft beware of every thing that may give occafion to that difeafe.—In general, all overgrown people have a tendency more or lefs to confumption and diforders of the breaft.

4th. Every man ought carefully to examine his temperament. If it be fanguine or choleric, it gives a tendency to inflammation; but if phlegmatic or melancholic, to chronic difeafes and weaknefs of the nerves.

5th. The climate alfo, and the fpot in which one lives, may create a tendency

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to diſeaſe. If they are cold and damp, one may reſt aſſured that they will produce a diſpoſition to nervous and bilious fevers, the ague, gout, and rheumatiſm.

6th. To pay attention, in particular, to one's weakeſt part is of importance. Every man, in a phyſical ſenſe, has his weak ſide; and all cauſes of diſeaſe are accuſtomed, in general, to fix themſelves in thoſe parts which are by Nature weakeſt. Thoſe, for example, who have weak lungs, will be affected chiefly in that part; and every thing almoſt will give riſe to a catarrh or diſorder of the breaſt. If the ſtomach be weak, it will be acted upon by every ſlight cauſe; and indigeſtion, crudity and foulneſs of it will be the conſequence. If one is acquainted with theſe parts, one may contribute very much to the prevention of diſeaſe, and the prolongation of life; partly by guarding them againſt morbific cauſes—and partly by ſtrengthening them, and depriving them of their too great ſenſibility. As much depends,

therefore, on acquiring the art how to diſcover the weakeſt parts of one's body, I ſhall give the following ſigns, which may be underſtood by thoſe even who are not phyſicians:—Obſerve on what parts any mental ſhock, or violent affection, produces the greateſt effect; for theſe are the weakeſt. If theſe cauſes immediately excite a cough or uneaſy ſenſation in the breaſt, the lungs are the part pointed out; if they occaſion a compreſſion of the ſtomach, flatulency, and the like, one may be aſſured that the weak part is the ſtomach. Obſerve alſo where the effects of other morbific influences are reflected; as for example, the effects of a ſurfeit, a cold, overheating, violent exerciſe, &c. If the breaſt is attacked, that may be conſidered as the weakeſt part. It is of equal importance to obſerve which way the blood and juices have the greateſt tendency; what parts are uſually the reddeſt and the hotteſt, and where perſpiration appears in the greateſt abundance; for,

for, there, if the reſt of the body does not perſpire, will diſeaſe moſt readily fix itſelf. One alſo may, in general, conclude, that any part which one uſes violently and immoderately, or which one overſtrains, will become weaker: for example, the brain among ſtudious people, the breaſt among ſingers, the ſtomach among gluttons, &c.

But it will here be neceſſary for me to take a view of the principal and moſt dangerous morbific tendencies, in order that thoſe who are not phyſicians may be made acquainted with the ſigns of them, and the regimen which each of them requires.

A *tendency* to *conſumption*, one of the moſt dangerous, may be ſuſpected (particularly before the age of thirty, for after that period this diſeaſe does not ſo readily take place) when one has that ſtructure of body and breaſt already deſcribed; alſo, if one's parents were conſumptive; if one is often and ſuddenly ſeized with hoarſeneſs

hoarſeneſs when there is no catarrhal cauſe for it, ſo that the voice frequently fails while talking; if one readily becomes breathleſs by ſpeaking, running, climbing a hill, or going up a ſtair; if one cannot breathe long, and keep in the air, without experiencing a pain in the breaſt, or incitement to cough; if the cheeks are exceedingly red as if painted, if they acquire ſuch a deep red color ſuddenly, or if this is the caſe with one cheek only; if the cheeks become red and hot, or the hands warm, while eating; if one experiences ſuddenly flying pains in the breaſt; if one, in the morning, coughs up ſmall lumps of the ſize of millet or barley, which have the appearance of cheeſe or tallow, and which, when preſſed, emit a bad ſmell; if, on every alarm, fit of paſſion, or other affection, one is ſubject to a pain in the breaſt, or a cough; if the ſame thing is excited by cold, by being overheated, or by any trifling irregularity; and if one be frequently attacked with a

catarrh

catarrh of the breaſt, or cannot eaſily get rid of it when it takes place. If one alſo ſpits up bloody matter from the lungs, it is much to be apprehended that a conſumption is faſt approaching.—Thoſe in whom theſe ſymptoms are obſerved ſhould avoid heating liquors, ſuch as, brandy and wine; ſpiceries, violent exerciſe, dancing, running, and the like; exceſs in amorous enjoyment; ſitting with the breaſt bent forwards, or preſſed againſt a deſk or work-board; and too loud or too long continued ſpeaking and ſinging.

Another tendency is that to the *hæmorrhoids.* This may be ſuſpected, if one's parents have had it; if one experiences ſometimes a pain in the back cloſe to the loins, or flying pains acroſs the buttocks, or ſometimes a painful conſtriction on going to ſtool; if one is always inclined to coſtiveneſs; if one experiences an itching in the anus, or a ſtrong perſpiration in that part; or if one is frequently liable to the head-ache, and ple-

thora of the head.—People who have theſe ſymptoms muſt not only avoid all heating liquors, but alſo warm drink, particularly coffee, tea and chocolate; and live chiefly on juicy freſh vegetables and fruit, with a moderate quantity of fleſh. They muſt abſtain alſo from paſtry, peaſe and all windy food; never continue long in a ſitting poſture, and take exerciſe every day. They muſt likewiſe not ſtrain too much or too violently when they go to ſtool; and not confine or ſtraiten the belly, but much rather rub it, a quarter of an hour every day, till it becomes ſoft.

A tendency to the *hypochondriaſis*, or *hyſterics*, and other nervous diſorders, may be ſuſpected, if one be born of parents who were nervous; if one has been confined early to ſtudy, and to a ſedentary life; if one, in youth, has been addicted to onaniſm; if one has lived ſhut up in the cloſet, and uſed much warm drink; if one has read a great many affecting works,

works, capable of exciting ſenſibility; if the frame of one's mind be much ſubject to variation, ſo that one becomes calm and melancholy on a ſudden, and breaks out as ſuddenly into joy, without any apparent cauſe; if one is often tormented with indigeſtion and flatulency, and frequently experiences uneaſineſs, palpitation, compreſſion, ſpaſms, and unuſual ſenſations of the like kind; if one, very early, and faſting, finds one's ſelf much tired, dejected, and incapable of exertion, though all theſe ſymptoms diſappear after one has taken ſome ſtrong nouriſhment, a diſh of coffee, or any cordial; if one has a ſtrong inclination to ſilence and ſolitude, or is timid and miſtruſtful in regard to mankind; if onions, peaſe, and the like, occaſion a great heavineſs and compreſſion at the ſtomach; and if one's ſtools are difficult, or if one goes to ſtool irregularly, and finds the fæces hard and dry.—People who have theſe ſymptoms ought to avoid a ſedentary life; and, if

that be impoſſible, to labor ſtanding at a deſk—or rather, as one cannot remain long in that poſture, ſitting on a hobby; and to make it an inviolable rule to take exerciſe for an hour or two every day, in the free open air. Riding on horſeback alſo is to ſuch people very beneficial. They muſt likewiſe frequent the company of friends in whom they can place confidence, and never give way too much to their propenſity to ſolitude. Travelling, a change of objects, and, above all, the uſe of country air, are great preventatives of the hypochondriac affection. It is often ſufficient to remove a diſeaſe of this kind, which has already attained to its higheſt ſtage, to ſpend half a year in the country, and to employ one's ſelf merely with rural labor—in ſhort, to live like the ſimple ruſtics; for, if people carry with them the luxury of the town, their reſidence in the country will be of little ſervice. It is more adviſable for thoſe who have a tendency of this kind, to be-

come

come farmers, hunters, or ſoldiers, than to be men of letters.—Friction of the belly is exceedingly uſeful to thoſe who have a diſpoſition to nervous weakneſs. It may be performed in the morning, every day, in bed, for a quarter of an hour, with the open hand, or with a piece of woollen cloth: it promotes digeſtion and circulation, diſſipates obſtructions, and is at the ſame time ſtrengthening. One ſhould carefully oppoſe that inclination to conſult quacks, which is always connected with this diſpoſition; and particularly to uſe purgatives, by which indigeſtion is ſtill increaſed. People ought to confide in one judicious phyſician, and to make him preſcribe for them rules of regimen rather than medicines. Cheeſe, puddings, pulſe, paſtry, fat meat, and heavy beer, ſhould in particular be avoided.

I muſt ſay ſomething alſo of a diſpoſition to the *apoplexy*, though that uſually takes place later. This may be diſcovered by a ſhort thickſet body, a neck

ſo ſhort that the head ſeems as if ſtuck between the ſhoulders, a face often red and ſwelled, a frequent ſinging and hiſſing in the ears, giddineſs, and other bad affections when one is faſting. People who have theſe ſymptoms muſt never overload the ſtomach, otherwiſe they may expire at table; in particular, they ought not to eat or drink much at night, to retire to reſt ſoon after, or to lie with the head low. They ſhould alſo beware of expoſing themſelves, and above all the feet, to violent heat or cold.

I ſhall now proceed to anſwer the queſtion, *In what manner ſhould a diſeaſe which has already taken place be treated, and what uſe ought to be made of phyſicians and of the medical art?*—The moſt important part of the anſwer may be reduced to the following rules:

1ſt. Never uſe medicine without a ſufficient cauſe; for, who wiſh to make themſelves ſick unneceſſarily? The cuſtom, therefore,

therefore, of purging, bleeding, and the like, at ſtated periods, merely for the purpoſe of guarding againſt a poſſible evil, is highly prejudicial. This practice often gives riſe to thoſe diſorders which one endeavors to avoid.

2d. It is much better to prevent diſeaſes than to cure them; for the latter is always connected with a greater loſs of the powers, and conſequently of vital duration. Let the above means, therefore, for guarding againſt them, be carefully obſerved.

3d. As ſoon, however, as a diſeaſe makes its appearance, the greateſt attention ought to be paid to it; for the moſt trifling indiſpoſition may conceal under it a very ſerious malady. This is the caſe, in particular, with feveriſh diſorders. The commencement of them is ſhewn by the following ſymptoms:—One experiences an uncommon laſſitude; the appetite fails, and one has a much greater deſire for drinking; the ſleep is interrupted or diſ-

turbed by dreams; the ufual excretions are checked, or increafed, in an unnatural manner; one has no inclination for labor, and is affected by a head-ache, and a greater or lefs degree of coldnefs, which is followed by heat.

4th. As foon as one perceives thefe fymptoms, nothing is fo neceffary as to leffen one's nourifhment, which ftrengthens the difeafe—and to follow the beneficent inftinct of Nature, which every animal, to its great advantage, obeys on fuch occafions. Let the patient abftain from eating; for, Nature, by rejecting food, fhews that fhe is incapable of digefting it; and let him drink a little more than ufual, but only water, or fome other light beverage. One ought alfo to be kept quiet; to lie is the beft pofition, for the laffitude fufficiently fhews that Nature requires her ftrength for modifying the difeafe; and one ought to avoid both heat and cold, confequently fhould neither go out into the open air, nor be fhut up in a warm apartment.

apartment. Theſe ſimple means, preſcribed to us ſo clearly by Nature herſelf, are capable, would we only liſten to her voice, of checking an infinite number of diſeaſes in their very birth. Old *Macklin*, that veteran of the London ſtage, who died lately in his 99th year, uſed to ſay, that, when he found himſelf ill, during the long courſe of his life, he always went to bed—took nothing but bread and water—and that, by this regimen, he was generally relieved from every ſlight indiſpoſition. I knew a reſpectable magiſtrate of fourſcore, who, when indiſpoſed, did nothing elſe than faſt, ſmoke tobacco, and obſerve the above rules; by which means he had never occaſion for medicine.

5th. If one has an opportunity of converſing with a phyſician, he ought to be conſulted, not ſo much reſpecting preſcriptions, as the ſtate of one's body. Should ſuch an opportunity be wanting, it is much better to prevent by the negative

tive method an increaſe of the diſeaſe, than to employ any thing poſitive, which may perhaps do hurt. No medicine, indeed, ought to be conſidered as a matter of indifference. Purgatives even, if uſed at an improper time, may be highly prejudicial. If my readers be deſirous of knowing the moſt harmleſs, it is a teaſpoonful of cream of tartar, ſtirred round in a glaſs of water; or the following draught, which certainly is one of the moſt general remedies for feveriſh diſorders:—Take half an ounce of cream of tartar, and boil it with ſix pounds of water, in a new earthen pot, until the powder is wholly diſſolved. After it is taken from the fire, add to it an orange cut into ſlices, with from an ounce and a half to three ounces of ſugar, according to taſte, and then put it into bottles for uſe. This may ſerve for one's common beverage.

6th. Be ingenuous with your phyſician, and give him a true account of your paſt

life,

life, ſo far as it may relate to the diſeaſe; and forget no unfavorable circumſtance, eſpecially when the caſe is ſtated in writing. Avoid, in particular, all reaſoning on it, which is a common fault—or of giving any repreſentation according to a preconceived opinion, but relate merely what you have obſerved in as unprejudiced a manner as poſſible.

7th. Make choice of a phyſician in whom you can place confidence, but none of thoſe who deal in arcana, who are too talkative or inquiſitive, who value themſelves above others, or who endeavor to make the conduct of others appear in a dubious light; for this always betrays ignorance, a bad head, or a bad heart; in ſhort, none of thoſe who are fond of preſcribing ſtrong powerful medicines, or who, according to the common ſaying, will either cure or kill.

8th. Avoid, in particular, a phyſician whoſe principal object in his practice is avarice or ambition. A real phyſician ought

ought to have no objects but the health and preservation of his patients; any other mislead him from the true path, and may be attended with the most prejudicial consequences to those who employ him. If he happens to be so situated with a case that either his reputation or his pocket will suffer if he ventures any thing for the relief of his patient, he will certainly rather allow the patient to die than lose his reputation. He will also be interested in the fate of his patients, in proportion to their rank and their riches.

9th. The best physician is he who is at the same time a friend. One may be open-hearted with such a man, and place confidence in him. He is acquainted with his patients, and observes them when in a state of health, which is of the utmost importance to enable him to treat them in a proper manner when attacked by disease. In short, he is strongly interested in their condition, and will exert himself with more activity and attention to restore

their

their health, than the phyſician who acts merely in that capacity. People, therefore, ought to do every thing in their power to unite themſelves in the tendereſt bonds of friendſhip with their phyſician; and never to diſſolve their intimacy by want of confidence, peeviſhneſs, pride, or any other impropriety of behaviour, which is ſo often ſhewn towards phyſicians, but always with more injury to the patient.

10th. Be greatly on your guard againſt any phyſician who prepares and employs ſecret medicines; for he is either an intereſted man, who values his own advantage far above the lives and health of his patients, or an ignorant impoſtor; and no impoſtor is more deſtructive than he who deprives you, not only of your money, but alſo of your health. If a ſecret be of any value, and uſeful to mankind, it ſhould be the property of the public, and ought to be made known for the general benefit; and he who diſcloſes it is entitled

tled without doubt to immortal honor. Thofe alfo who conceal fuch remedies, do injury to thoufands; becaufe people cannot ufe them properly, not being well enough acquainted with them; or becaufe they cannot be procured in common, and be employed by a judicious phyfician.

11th. No where, in general, ought one to be more attentive to morality of character than in the choice of a phyfician; for where is it more neceffary? If he to whom you blindly entruft your life, who is fubject to no tribunal but that of his confcience, and who, to difcharge in a complete manner the duty of his calling, muft facrifice all reft and pleafure, nay his own health and life—if this man does not act according to the pure principles of morality, but makes policy, as it is called, his motive, he is a deteftable and dangerous character, and ought to be avoided with greater care than the moft deftructive difeafe. A phyfician without morals is not a non-entity—he is a monfter.

12th. If people, however, meet with an able and honeſt phyſician, they ought to entruſt themſelves to him with full confidence. This will tend to make the minds of the patients quiet, and be of great ſervice to aſſiſt the phyſician in effecting a cure. Many believe, that the more phyſicians they collect around them, the more certain they muſt be of relief; but this is a groſs error. I here ſpeak from experience. One phyſician is better than two—two than three—and ſo on in proportion. In the ſame ratio as phyſicians are increaſed will the probability of cure decreaſe; and, in my opinion, there is a certain point of medical overloading, in which a cure is phyſically impoſſible.—Some caſes, indeed, may occur, but very ſeldom, in which a diſorder, by being ſecret or complex, may require a conſultation of ſeveral. One, however, ought to call in only thoſe who are known to be judicious men, and who will act in concert; and to employ ſuch conſultations

tions for discovering and defining the disease, and to form a plan of the method to be followed in the cure. The application of it should always be permitted to one, and to that practitioner in whom people have the greatest confidence.

13th. One ought carefully to observe the crises, or helps and means of which Nature seems to be fondest, and which she perhaps may have employed on former occasions, and whether she is accustomed to assist herself by perspiration, diarrhœa, blooding at the nose, or urine. The same means one must endeavor to promote in every disease of the like kind; and such information is of great importance to the physician.

14th. To pay attention to cleanliness is a precept indispensibly necessary to be observed in regard to every disease; for, by means of filth, any disorder may be converted into one putrid, and far more dangerous. By neglecting this point, therefore, people injure not only their

friends and relations, but alſo the phyſician, who may thus be deprived of his own health. The patient's linen, on this account, ought to be changed daily, but at the ſame time with ſome caution; the air ought to be renewed in his apartment, and all excretions ſhould be ſpeedily conveyed from it. As few people as poſſible ſhould be ſuffered to continue in it; and all animals, flowers, remains of food, old clothes, and in ſhort every thing that may produce an evaporation, ought to be removed from it.

CHAP. XVII.

Relief in cases where one is exposed to the danger of sudden death.

THERE are certain causes which, where the health is perfectly sound, and where one has the best capacity for long life, may suddenly interrupt and destroy the vital operation.—I here allude to the violent causes of sudden death; and as to lessen these, or to render them harmless, is an important part of the art of preserving and prolonging life, I shall lay before my readers what information may be necessary on the subject.

To this head belong all violent kinds of death, which may be effected either by mechanical injuries, or organic derangement; and they may all be reduced to three classes. They either render the vital

vital organs unfit for performing their functions; destroy suddenly the vital power, as lightning, violent passion, and the greater part of poisons; or they suddenly destroy vital irritability, without the continual agency of which there could be no vital exertion.

The method of counteracting these is two-fold. One can either guard against them, or destroy their effect after they have already begun to act.

I shall first speak of the means by which one can guard against them.—It is impossible to keep at a distance all these causes; for they are so connected with our life, and in particular with the employment of many, that one must resign life itself in order to avoid them. We can, however, procure to our bodies a great degree of immunity from them, and give it some properties by which it will be put in such a condition as to sustain little or no hurt from them when they approach it. There is, therefore, an objective and a subjective

art of guarding againſt the dangers of death; and the latter is that in which every one ſhould endeavor to acquire a certain degree of perfection. In my opinion, it is neceſſary for the formation and education of man. The means are exceedingly ſimple.

1ſt. Endeavor to give to the body the utmoſt poſſible agility and readineſs in all bodily exerciſes. A ſufficient cultivation of the corporeal powers, by running, climbing, tumbling, ſwimming, walking on any narrow ridge, &c. will be a great mean of ſecuring one from dangerous accidents; and were ſuch a part of education more common, much fewer people would loſe their lives by drowning, falls, and other misfortunes of the like kind.

2d. The judgment ſhould be formed, and one's knowledge rectified, by the ſtudy of Natural Philoſophy, and Natural Hiſtory, in regard to every pernicious power. To this belongs an acquaintance with the nature of poiſons; the properties

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of lightning, and the means of avoiding it; the noxious quality and effects of mephitic air, froſt, &c. To give ſufficient cautions on this ſubject, it would be neceſſary for me to write a whole treatiſe; and I ſincerely wiſh that ſome one would undertake ſuch a work, and that it may be introduced into ſchools.

3d. Endeavor to render the mind intrepid; to give it ſtrength and philoſophical equanimity; and accuſtom it to ſudden and unexpected events. This will be doubly beneficial. One will thereby guard againſt the phyſical injury of ſudden and alarming impreſſions, and will have more preſence of mind to purſue the means proper to be uſed in caſes of ſudden danger.

4th. Give to the body a ſufficient degree of pathological hardening againſt cold and heat, or any changes of the like kind. Thoſe who poſſeſs this property will be able to brave death on many occaſions, when others will be obliged to ſubmit to it.

But, in regard to the danger of death actually exifting—What is to be done in cafes of drowning, hanging, fuffocation, poifoning, or being ftruck with lightning, &c.? Even here there are means by which perfons apparently dead have been happily brought again to life; and this is a part of medicine which every man fhould underftand—for fuch accidents may occur to every one, and every thing depends on affiftance being given fpeedily. In cafes of fo much danger each moment is precious; and the fimpleft means employed immediately, may effect more than the whole wifdom of an Æfculapius could half an hour later. He who firft arrives when an accident has taken place fhould confider it as his duty to apply help inftantaneoufly, and carefully reflect that the life of an unfortunate being may depend on a minute fooner or later *.

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* It was, therefore, a happy idea of Dr. Struve, at Gorliz, to publifh the means to be ufed in fuch cafes

The violent kinds of death, in regard to their treatment, may be divided into three claffes.

'The *firft clafs* comprehends fuffocation, (by hanging, drowning, or foul air,) and death, or the being ftruck by lightning; with the mode of treatment. The firft and moft effectual means in fuch cafes are the following:

'1ft. Be as expeditious as you can to draw the body from the water, or to cut the rope—in a word, to remove the caufe of death. This alone is fufficient to fave the unfortunate perfon if it be done fpeedily; but attention to that point is too much neglected. In moft places apparatus is kept for giving relief in fuch cafes; but people in general are fo flow in applying it, that one might believe it in-

cafes in the form of a bill or card, in order that they might be hung up in fchools, country villages, and other places of the like kind. Of thefe cards, three have already appeared: One for *cafes of drowning*; another for *cafes of poifon, the bite of a mad dog, &c*; and another for *cafes of midwifery*.

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tended rather for the funeral ceremony, than for ſaving the life of a fellow-creature. I am, therefore, fully convinced, that better machinery for dragging up the bodies of drowned perſons would be far more valuable than all the apparatus for reſtoring ſuſpended animation*; and when one ſees how unwillingly and in how awkward a manner people undertake this buſineſs—how averſe they are to it, and what prejudice prevails againſt it, one will not wonder that ſo few unfortunate perſons ſhould be ſaved in Germany. I muſt, therefore, entreat all governments to endeavor to bring this part of the eſta-

* Hamburgh, which has already ſerved as a pattern in regard to many patriotic eſtabliſhments, gives here alſo an example worthy of imitation, as this part of the aſſiſtance has been there carried to an extraordinary degree of perfection. I recommend to every phyſician, humane ſociety, and friend of mankind, the following work, as the beſt book of the kind extant: *Gunthers Geſchichte und jetzige Einrichtung der Hamburger Rettungſanſtalten mit Kupfern*. Hamburgh bey Bohn. 1796.

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bliſhment for reſtoring life to greater perfection; and here I include rooting out prejudice*, diſputes reſpecting juriſdiction, the payment of the reward, and the puniſhment of voluntary delay.

2d. The body ſhould be immediately ſtripped, and every endeavor ſhould be made, as ſpeedily as poſſible, to excite in it a general warmth. Heat is the firſt and moſt general ſtimulus of life. The ſame means which Nature employs to quicken life in the beginning, are alſo the moſt powerful to produce life a ſecond time. The beſt thing for that purpoſe is the tepid bath; but if this cannot be had,

* Of this kind is the ſhameful dread of the diſhonor and diſgrace which attend the touching of ſuch unfortunate people; the diabolical ſuperſtition of many fiſhermen, that one muſt not draw the body of a drowned perſon from the water, before ſun ſet, in order that the fiſh may not be frightened away, or that ſome rivers muſt have an annual offering, and other ideas of the like kind, which prevail among the vulgar much more than one might imagine.

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the patient may be covered with warm ſand, aſhes, or thick blankets in a bed; and hot ſtones ſhould be applied to various parts of the body. Without theſe means all others will be of little avail; and it is much better to warm thoroughly perſons apparently dead, than to uſe cupping, friction, glyſters, or the like, and at the ſame time to ſuffer them to become ſtiff with cold.

3d. To inſpire air into the lungs is the next proceſs in point of importance, and may be connected with the excitation of heat. It is, indeed, moſt beneficial when it is done with dephlogiſticated air by means of a pipe and a pair of bellows. But in urgent caſes, and to ſave precious time, it will be ſufficient if one breathes into the mouth of the perſon apparently dead, holding faſt the noſe at the ſame time; and when he obſerves that the ribs are extended, he muſt ſtop a little, and, by compreſſing the diaphragm, or drawing a handkerchief tight round the body, expel

expel the air again; then breathe into the body anew; and continue to make it thus breathe artificially for fome time.

4th. Let fall now and then, from a certain height, drops of frigid water or wine on the pit of the ftomach. This fometimes has given the firft ftimulus to reftore the motion of the heart.

5th. Rub with a cloth or flefh-brufh the hands and foles of the feet, the belly and the back: irritate the fenfible parts of the body, fuch as the foles of the feet and hollow of the hands, by pricking, cutting, or dropping melted fealing wax upon them; the nofe and throat, by means of a feather, or by holding to the noftrils, and dropping on the tongue, volatile fpirit of fal ammoniac; the eyes, by bringing a light before them; and the ears (organs which remain infenfible much longer than any other), by crying aloud, or by founding a trumpet, firing a piftol, &c.

6th. Blow into the anus air or tobacco fmoke, for which purpofe two horn tobacco-

bacco-pipes joined together may be uſed; or, when an inſtrument is at hand, inject into it a decoction of tobacco, muſtard and water, mixed with vinegar and wine.

7th. As ſoon as ſigns of life begin to appear, pour a ſpoonful of good wine into the mouth; and when the patient ſwallows it, repeat the ſame thing often. In caſes of neceſſity brandy may be uſed, but mixed with two thirds of water.

8th. For thoſe who have been ſtruck by lightning, the earth bath is to be recommended. The body may be either laid, with the mouth open, againſt a ſpot of earth newly dug up, or freſh earth may be ſcraped round it up to the neck.

If theſe ſimple means, which every one can and ought to uſe in regard to his fellow-citizens, when expoſed to the danger of ſudden death, be ſpeedily employed, they will be of more ſervice than the moſt complete apparatus applied half an hour later; and at any rate the intermediate time will not be entirely loſt, and the feeble

feeble vital ſpark may be prevented from being totally extinguiſhed.

In the *ſecond claſs* is comprehended thoſe who have been *frozen.* Theſe require a mode of treatment entirely different; for by warmth they would be deſtroyed altogether. Nothing farther is to be done than to immerſe them in ſnow up to the head; or to place them in a bath of the coldeſt water that can be procured without being frozen. Here life will return of itſelf; and as ſoon as any ſigns of it appear, give the patients a little warm tea with wine, and put them to bed.

The *third claſs* contains thoſe who have been poiſoned. It is here to be obſerved, that we are in poſſeſſion of two invaluable remedies, proper for any poiſon, which may be every where found, and which require no previous acquaintance with medicine—I mean *milk* and *oil.* By the help of theſe only, the moſt dreadful of all the kinds of poiſoning, that by *arſenic*, has been cured. Both of them anſwer

the principal object, which is to expel the poison, or to destroy its power. Let persons, therefore, who have been poisoned, drink as much milk as they can (if it in part comes up again, so much the better); and let them, every quarter of an hour, take a cup-full of oil of any sort; for it is all the same whether it be oil of lintseed, almonds, poppies, or common oil. If it be known with certainty that the poison is arsenic, sublimate, or any other metallic salt, dissolve soap in water, and let the patient swallow it. This will be sufficient till a physician arrive, and will often render his assistance unnecessary.

CHAP. XVIII.

Old age—Proper treatment of it.

OLD age, though the natural conſequence of living, and the commencement of death, can itſelf, on the other hand, be a mean for prolonging our exiſtence. It does not, however, increaſe the power to live, but it retards its being exhauſted; and one may thus affirm, that a man in the laſt period of life, at the time when his powers are leſſened, would, were he not old, finiſh his career ſooner.

This poſition, which appears to be ſomewhat paradoxical, is confirmed by the following explanation :—Man, during the period of old age, has a much ſmaller proviſion of the vital power, and much leſs capacity for reſtoration. If he lived with

with the ſame activity and vigor as before, this proviſion would be much ſooner exhauſted, and death would ſoon be the conſequence. Now the character of age leſſens the natural irritability and ſenſibility of the body, by which the effects of internal as well as external irritation, and conſequently the exertion and waſting of the powers, are alſo leſſened; and, on this account, as conſumption is leſs, he can with ſuch a ſtock of powers hold out much longer. The decreaſe of the intenſion of the vital proceſſes, as age increaſes, prolongs therefore vital duration.

Irritability being thus leſſened, leſſens alſo the effect of pernicious impreſſions and morbific cauſes, ſuch as the paſſions, overheating, &c.; it preſerves likewiſe much greater quietneſs and uniformity in the internal economy, and in that manner ſecures the body from many diſeaſes. It is obſerved that, for this reaſon alſo, old people are much leſs attacked by infectious

fectious diſorders than thoſe who are young.

To this may be added the habit of living, which, without doubt, in the latter period of one's days, contributes to the ſupport of life. An animal operation, which one has carried on ſo long, always in the ſame order and ſucceſſion, becomes at laſt ſo cuſtomary that it continues through habit when the action of other cauſes ceaſes. It is often aſtoniſhing how the greateſt debility of age will hold out, provided every thing remain in its uſual order and ſucceſſion. The ſpiritual man is ſometimes actually dead; and yet the vegetative, the man-plant, ſtill continues to live; but for the latter, indeed, much leſs is neceſſary. To this habit of life it is owing alſo that a man, the older he grows, becomes ſtill fonder of exiſtence.

If old age, therefore, is properly treated and ſupported, it can be employed, in ſome meaſure, as a mean of prolonging life; but, as this requires deviations from

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the general laws, I consider it necessary to give the rules proper to be observed.

The principal points in this treatment are, that one must always endeavor to lessen and soften the increasing dryness and rigidity of the vessels, which at length occasion a complete stoppage of the whole machine; that nourishment and restoration of what has been lost must be facilitated as much as possible; that stronger irritation must be given to the body, because the natural irritability is so much weakened; and that one must promote excretion of the corrupted particles, which in old age is so imperfect, and which therefore produces an impurity of the juices, that accelerates death.—Upon these are grounded the following rules:

1st. As the natural heat of the body decreases in old age, one must endeavor to support and increase it externally as much as possible. Warm clothing, warm apartments and beds, heating nourishment,

ment, and, when it can be done, to remove to a warmer climate, are all means, therefore, that contribute greatly to the prolongation of life.

2d. The food muſt be eaſy of digeſtion, rather fluid than ſolid; abundant in concentrated nouriſhment; and at the ſame time much more ſtimulating than would be adviſable at an earlier period. Warm, ſtrong, and well-ſeaſoned ſoups are, therefore, beneficial to old age; and alſo tender roaſt meat, nutritive vegetables, good nouriſhing beer, and, above all, oily generous wine, free from acid, earthy and watery particles, &c. ſuch as Tokay, Spaniſh, Cyprus, and Cape wines. Wine of this kind is one of the moſt excellent ſtimulants of life, and that beſt ſuited to old age. It does not inflame, but nouriſhes and ſtrengthens: it is milk for old people.

3d. The tepid bath is exceedingly well calculated to increaſe the natural heat, to promote excretion, particularly of the

ſkin, and to leſſen the aridity and ſtiffneſs of the whole frame.

4th. Guard againſt all violent evacuations, ſuch as letting blood, unleſs when required by particular circumſtances; ſtrong purging, exciting perſpiration by too much heat, indulging in amorous enjoyment, &c. Theſe exhauſt the few powers ſtill remaining, and increaſe aridity.

5th. People, with increaſing years, ſhould accuſtom themſelves more and more to a certain order in all the vital operations. Eating, drinking, motion and reſt, the evacuations, and employment, muſt have their determined periods and ſucceſſion. Such mechanical order and regularity, at this ſeaſon of life, may contribute greatly to the prolongation of it.

6th. The body, however, muſt have exerciſe, but not violent or exhauſting. That which is rather paſſive will be the beſt, ſuch as riding in a carriage, and frequent friction of the whole ſkin, for

which

which ſweet-ſcented and ſtrong ointments may be employed with great advantage, in order to leſſen the rigidity of the ſkin, and to preſerve it in a ſtate of ſoftneſs.—Violent bodily ſhocks muſt in particular be avoided. Theſe, in general, lay a foundation for the firſt cauſe of death.

7th. A pleaſant frame of mind, and agreeable employment for it, are here of uncommon utility; but violent paſſions, which might derange it, and which in old age may occaſion inſtant death, ought to be avoided. That ſerenity and contentment which are excited by domeſtic felicity, by the pleaſant review of a life ſpent not in vain, and by a conſoling proſpect of the future even on this ſide the grave, are the moſt ſalutary. The frame of mind beſt fitted and moſt beneficial to old age, is that produced by intercourſe with children and young people. Their innocent paſtime and youthful frolics have ſomething which tend, as it were, to renovate and revive. Hope, and extending

our views of life, are in particular noble assistants for this purpose. New proposals, new plans and undertakings, (which, however, must be attended with nothing dangerous, or that can create uneasiness,) in a word, the means of continuing life longer in idea, may even contribute something towards the physical prolongation of it. We find, therefore, that old people are impelled to this, as if by internal instinct. They begin to build houses, to lay out gardens, &c.; and seem, in this little self-deception, by which they imagine they secure life, to find an uncommon degree of pleasure.

CHAP.

CHAP. XIX.

Cultivation of the mental and bodily powers.

IT is only by culture that man acquires perfection. If he is desirous of enjoying the pre-eminence of human nature, his spiritual as well as his physical powers must obtain a certain degree of expansion, refinement, and exaltation. In a rude and uncultivated state he is not a man; he is only a savage animal, who has certain dispositions which fit him for becoming a man; but as long as these dispositions are not expanded by culture, he is raised, neither physically nor morally, above the other classes of animals in the like situation. The essential part of man which he possesses is his susceptibility of perfection; and his whole organization is so

ſo ordered that he may either become nothing or every thing.

The influence, therefore, which culture has in bringing to perfection the phyſical man, as well as in prolonging life, is highly worthy of attention. It is generally believed that all cultivation tends to weaken and to ſhorten phyſical exiſtence; but this is the caſe only in regard to the extreme—for *hyperculture*, which makes man too delicate and refined, is as pernicious and unnatural as the other extreme, *want of cultivation*, when the faculties are not, or have been too little, expanded. By both theſe, the duration of life is ſhortened. Neither the man, therefore, who by culture has become too tender, or who leads too ſenſual or too ſpiritual a life, nor the rude ſavage, ever attains to that term of life which man is actually capable of reaching. On the other hand, a proper and ſuitable degree of mental and bodily culture, and, in particular, a harmonic formation of all the powers, is, as

has

has been already ſhewn, abſolutely requiſite, before man can attain to that pre-eminence over animals, in his phyſical ſtate and vital duration, of which he is really ſuſceptible.

It is well worth the trouble to examine and explain more accurately the influence which real culture has in prolonging life, and to eſtabliſh how far it differs from that which is falſe. In lengthening our exiſtence it acts in the following manner:

It expands the organs to perfection, and conſequently renders life richer as well as fuller of enjoyment; and occaſions more abundant reſtoration. How many means of reſtoration, unknown to the ſavage, has the man who poſſeſſes a cultivated mind!

It renders the whole texture of the body ſomewhat ſofter and tenderer; conſequently leſſens that too great hardneſs which impedes duration of life.

It ſecures us againſt thoſe deſtructive and life-ſhortening cauſes which deprive

many ſavages of their exiſtence; ſuch as, cold, heat, the influence of the weather, hunger, poiſonous and pernicious ſubſtances, &c.

By reaſon and moral formation it moderates and regulates the paſſionate and merely animal part within us; teaches us to ſupport misfortunes, injuries, and the like; and, by theſe means, moderates the too violent and active vital conſumption, which would ſoon deſtroy us.

It is the foundation of ſocial and political connexions, by which mutual aid laws and police eſtabliſhments become poſſible; and theſe have a mediate effect in prolonging life.

Laſtly, it makes us acquainted with a multitude of conveniencies and means for rendering life more agreeable; which are, indeed, leſs neceſſary in youth, but which are of the utmoſt importance in old age. Nouriſhment refined by the art of cookery, exerciſe made eaſier by artificial helps, more perfect refreſhment and

reft, &c. are all advantages by which man in a cultivated ſtate can ſupport life much longer in old age, than man in the rude ſtate of nature.

From this it already appears what degree and what kind of culture are neceſſary in order to prolong life—thoſe which phyſically, as well as morally, have for their object the higheſt poſſible formation of our powers, but which are always regulated by that ſupreme moral law, to which every thing, to be good, ſuited to its end, and really beneficial, muſt have a relation.

THE END.